THE MEDICAL JOURNAL OF AUSTRALIA

VOL. I.—38TH YEAR. SYDNEY, SATURDAY, FEBRUARY 17, 1951. No. 7.

Table of Contents.

[The Whole of the Literary Matter in THE MEDICAL JOURNAL OF AUSTRALIA is Copyright.]

ORIGINAL ARTICLES— Page.
An Address—"Destruction and Death: Can We Apply the Brake?", by Robert Southby, M.D., B.S., F.R.A.C.P., F.A.C.S.T. 245
Acute Anterior Poliomyelitis, by S. G. Bradfield .. 250
Treatment of Anterior Poliomyelitis, by W. Douglas Sturrock, F.R.C.S. 252
Some Problems in General Practice, by Leslie Hurley 254
Cysts and Diverticula in the Region of the Caecum, with a Report of Two Cases, by K. Viner Smith 259

REVIEWS—
Irradiation in Malignant Disease 261
Fractures 261
McClung's Handbook of Microscopical Technique .. 261
A Text-Book on Obstetrics 262

BOOKS RECEIVED 262

LEADING ARTICLES—
"Global Strategy" in Preventive Medicine 263

CURRENT COMMENT—
Hospital Wisdom: The Patient's Point of View .. 264
Observations on Reticulocytes in Anæmia 265
Cardiac Arrest during Operation 265

ABSTRACTS FROM MEDICAL LITERATURE—
Obstetrics and Gynæcology 266

BRITISH MEDICAL ASSOCIATION NEWS—
Annual Meeting 268
Scientific 274

CORRESPONDENCE— Page.
The Commonwealth Jubilee Number 276
Electroconvulsive Therapy and Schizophrenia .. 276
Blood Transfusion Neuritis 277
Cases for Diagnosis 277

POST-GRADUATE WORK—
The Melbourne Permanent Post-Graduate Committee 277
The Post-Graduate Committee in Medicine in the University of Sydney 278
Seminars at the Royal Prince Alfred Hospital, Sydney 278

NAVAL, MILITARY AND AIR FORCE—
Appointments 278

CONGRESSES—
Fourth International Congress on Mental Health .. 278

NOMINATIONS AND ELECTIONS 279

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA 279

CORRIGENDUM 280

MEDICAL APPOINTMENTS 280

DIARY FOR THE MONTH 280

MEDICAL APPOINTMENTS: IMPORTANT NOTICE .. 280

EDITORIAL NOTICES 280

An Address.[1]

"DESTRUCTION AND DEATH: CAN WE APPLY THE BRAKE?"

By ROBERT SOUTHBY, M.D., B.S. (Melbourne), F.R.A.C.P., F.A.C.S.T. (Honorary),

Retiring President of the Victorian Branch of the British Medical Association.

EACH YEAR you elect one of your members to the position of President, and for the year, 1950, just drawing to a close, you granted me this highest honour which it is in your power to award. For this I offer my sincerest thanks.

In the first place, I should like to acknowledge on this important occasion the debt of gratitude due to my parents for their sacrifices in the earlier days which enabled me to enter the ranks of the profession which we all love so dearly. I am further most grateful to be able to say that they have been spared to enjoy this honour with me.

The year has in every respect been an extremely busy and exacting one, and at times decisions have had to be reached and recommendations and requests made to you all which I have always firmly believed in my own mind to be in the best interests of the community generally, and in particular to maintain the honour of the profession. For your loyal and unswerving cooperation on these numerous occasions I am most deeply grateful and should like to express to you all this evening my heartfelt thanks for such wonderful and willing support at all times.

I am also deeply appreciative of the fact that you have deemed it unnecessary to alter the team of councillors elected by the general body of members of the Branch, which therefore remains the same for the ensuing year of 1951, and I have much pleasure in handing on to the incoming President such a valued and experienced Council as it has been my very great privilege to lead.

Throughout the year your Council has stoutly maintained the position that any negotiations in which we have been involved must not interfere with the freedom of the "doctor-patient" relationship which we have always enjoyed. To me personally this attitude has always been most appropriate, if I may be permitted to quote an old motto of my family: *"Libertas pretiosior auro."*

My greatest and constant concern throughout the year has been lest I may not have been able to justify the trust you have placed in me. I can only say that at all times I have striven to do my best for the British Medical Association, and I sincerely trust that your confidence has not been misplaced.

My wish now is that you will be equally tolerant for the remainder of the evening since my last official duty is to deliver a presidential address.

The title of what I am now about to present is "Destruction and Death: Can We Apply the Brake?"

Destruction and Death.

Infantile Deaths.

Statistics throughout Australia show during the last half century a very steady decline in the number of infantile deaths each year, but when we analyse the data more closely we find that whereas the over-all death rate in infants in the first year of life has very consistently fallen, that for infants in the first month has remained almost constantly at the same level throughout this period. This is clearly demonstrated in a graphic representation of this information as applied to both New South Wales and Victoria (Figures I and II).

[1] Delivered at the annual meeting of the Victorian Branch of the British Medical Association on December 6, 1950.

Admittedly this is contributed to in large measure by the problem of prematurity, which accounts for a major proportion of these neo-natal deaths. Some of these premature infants are "pre-viables" and are so early as to have no possible chance of surviving. But even amongst the viables the death rate is extremely high, and the premature infant, handicapped as he is from the start, is particularly vulnerable to various hazards which would have little effect on a normal full-time infant. His chance of survival is twenty times less than that of the full-time baby.

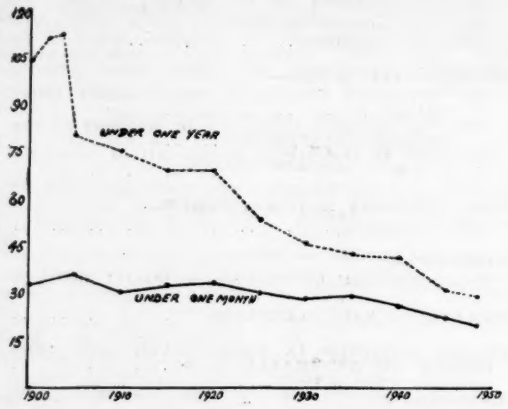

FIGURE I.
Deaths per 1000 births in New South Wales.

Bronchopneumonia in infancy also presents up to the present time an almost insoluble problem for the clinician, and the mortality figures have not been reduced very dramatically even with the advent of chemotherapy. In infants this illness is an entirely different proposition from the bronchopneumonia of older children and adults and, of course, a totally different entity from lobar pneumonia.

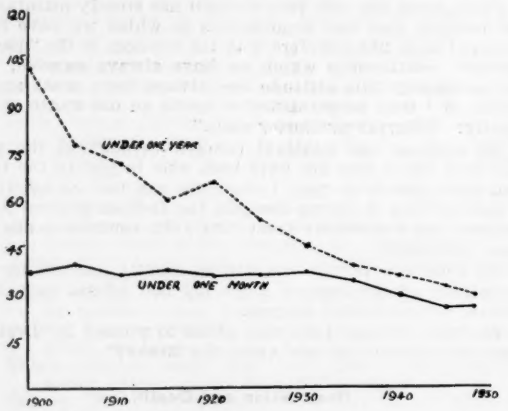

FIGURE II.
Deaths per 1000 births in Victoria.

Infant mortality rate is an accurate measure of infant welfare and of the standard of living of any community.

At the Children's Hospital, Melbourne, the death rate on the basis of total admissions has decreased in the last twenty years from 9·5% to 2·6%, but even with this last figure infants provided more than two-thirds of all the deaths (Figure III).

Teeth.

In the course of practice one is literally staggered by the appalling state of the teeth in many young children in our community.

The reason for this state of affairs is difficult to understand when one considers that in this young country of ours we have ample food, fruit and vegetables, open air and sunlight, and particularly when we realize that the same state of affairs prevails in both rural and urban areas.

Some actual figures are illuminating:

During a medical examination of pupils by medical officers of the Education Department, it was found that in one group of 20,038 children only 9984, or 49·8%, were free of defects.

In an examination of kindergarten children whose ages averaged about four years, it was discovered that of 621 children examined no less than 79 required extractions, and a total of 568 needed fillings or dressings. The total number of conservative treatments carried out was 2212.

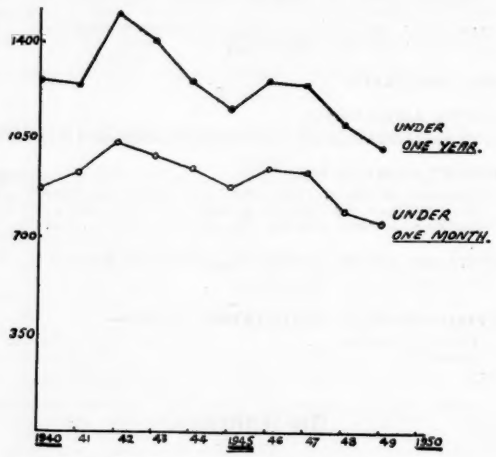

FIGURE III.
Deaths of infants in Victoria.

In a group of pre-school children with ages up to seven years during 1949-1950, it was found that of 8350 children examined a total of 1222 had satisfactory teeth. However, the total number of teeth extracted reached 15,136 and the fillings done were 6755.

Another group of children at the Lord Mayor's Country Children's Holiday Camp at Portsea during one year had only 82 with satisfactory mouths of a total of 2712 examined. In 109 no treatment was needed, but these youngsters had had treatment previously. Of all the children at the camp no less than 93% required dental attention, comprising 2828 extractions and 10,351 fillings. The senior dental officer made the following comment in his report:

> It is indeed sad to see children between the ages of 9 and 13 years wearing dentures and many more requiring them. It would appear that, before these children reach adult age, the vast majority of them will be wearing dentures unless drastic action is taken to provide them with dental treatment.

Our colleagues of the dental profession claim that refined sugar is one of the worst offenders as a causative factor in dental caries in this country. This is supported by some figures showing the consumption of sugar in various countries; they are as follows (Figure IV): Australia, 131 pounds per head per year; Italy, 26 pounds per head per year; Spain, 30 pounds per head per year; China, 6 pounds per head per year. It is also alleged that half the sugar produced in Australia is used in the production of lollies,

cakes, biscuits, jam, condensed milk, cordials, and many other foods none of which can be regarded as health foods.

In this connexion it is of some interest to compare the average annual consumption of some other commodities, the first three of which also cannot be classed as essential for the national economy. Beer: total quantity 139,360,000 gallons, total cost £45,873,000; average consumption per head 18 gallons, cost £6. Spirits: total quantity 2,527,000 gallons, total cost £11,688,000; average consumption per head 0·33 gallon, cost £1 10s. Tobacco: total quantity 34,005,000 pounds, total cost £43,439,000; average consumption per head 4·5 pounds, cost £5 10s. Fluid whole milk: total quantity 237,578,000 gallons, cost £40,000,000 (approximately); average consumption per head 30·5 gallons, cost £5.

Housing.

Housing is an extremely important factor for the well-being and good health of any community, and this is particularly applicable to growing children.

During the war period and in the subsequent years up to the present time, we have been faced more and more often with the problem of the hyperkinetic child; the over-active, alert, energetic, highly-strung little individual who has been brought up in a small flat or sharing part of a home with the grandparents and perhaps another son's or daughter's family also.

Owing to the force of circumstances in particular environment these children are unable to follow the routine of the normally active growing child. They are being constantly restrained or repressed for various reasons, and never have an opportunity to "let off steam" as most growing children delight in doing on occasions.

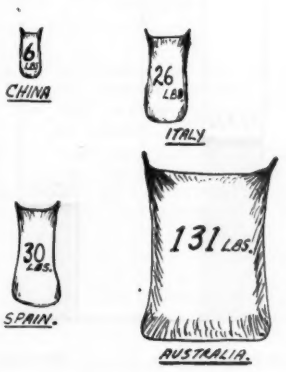

FIGURE IV.
Sugar consumption per head of population *per annum*.

Let us examine for a moment the figures supplied by the Housing Commission of Victoria since its inception in 1938 to June 30, 1950. They are as follows: number of houses completed, 11,600; number of applicants still waiting, 27,000; cost of two-bedroom house, £1900 (excluding land, roads *et cetera*); cost of three-bedroom house, £2050 (excluding land, roads *et cetera*. The rentals for these homes are respectively £2 11s. 6d. and £2 15s.

Surely here we find ample evidence of the extreme degree of frustration from which many young parents are suffering today. The long waits for the recurring drawings of ballots and the sense of utter hopelessness when the lucky numbers are announced are sufficient to destroy their spirit and disrupt their home life.

Country.

Let us turn our attention for a few moments to the country and observe what is happening in this part of the State. This may be considered under three headings: soil, water and forests.

Taking these in the order mentioned, first let us realize that productive soil is the concern of all mankind. Productive soil implies that portion of the earth's surface made up of mineral and organic materials which supports plant life and produces food, clothing and shelter. Approximately one-fourth of the earth's surface is land, and one-half of this land is tillable and can be made productive. Products from the soil are indispensable since they provide the bulk of the finance with which Australia purchases overseas requirements. The comparative ease with which soil washes away is most significant. It is essential to prevent soil waste and loss of moisture. Soil which is properly used and protected maintains its productiveness. Effective soil-erosion control measures properly applied to our lands would restore largely the lost fertility to those badly eroded, yet man continues to destroy his greatest heritage, the soil. "Productive land is a profound asset, but wasted land, the result of neglect and mismanagement, is a shameful liability." Serious erosion is too frequently a direct result of inadequate and/or unsound farming methods and can be corrected.

Destruction of ground cover is caused by indiscriminate clearing of land, bush fires, over-grazing of pastures, stubble burning, soil mismanagement and the rabbit.

Two-thirds of the world population before World War II were undernourished all the time.

> Hordes of gullies now remind us
> We should build our lands to stay,
> And departing leave behind us
> Fields that have not washed away.

New agricultural lands are not limitless, and without stability and permanency of the soil there can be no good standard of living for our people—yet it is allowed gradually to make its way into the sea.

The estimated cost to the State of Victoria each year at the present time as a result of erosion approaches the figure of £6,000,000. This is made up of a direct charge on the budget, mainly for clearing water channels of drift sand in the Mallee areas, and a reduction in the production of the State, which has the effect of reducing the income of the State through taxation. It is evident, therefore, that with conservation measures much land can be reclaimed and production greatly improved.

Secondly, on the subject of water, successful settlement and development of agricultural lands depend on the establishment and extension of artificial means of water supply for the use of both man and beast and for the stimulation of agricultural growth by irrigation. Water-conservation schemes are therefore inevitable for the development and essential for the continued occupation of the land. With the extension of assured water supplies into less watered areas, settlement of such areas becomes practicable. Two-fifths of the agricultural lands of Victoria are now artificially supplied with water.

In 1851 the Port Phillip district was separated from the Colony of New South Wales, and under the name of Victoria was given independent government. As early as 1853 the new government put in hand the first work for the conservation of water resources, the Yan Yean reservoir, to provide an assured supply for the city of Melbourne. At the time of the great drought of 1902 the total capacity of storages in Victoria was 172,000 acre feet. The State Rivers and Water Supply Commission was constituted in the year 1906, and when all present works in course of construction are completed the total capacity will be 2,658,470 acre feet, or something over 750,000,000,000 gallons, which could supply Melbourne and the metropolis for a period of twenty years.

Thirdly, with regard to forests, it is observed that destruction or deterioration of timber is brought about by bush fires, insect and fungus attack, erosion, drought, parasitic infestation and wind and snow, and these causes all work more or less in conjunction. The deterioration is gradual and often of an extremely slow character.

An important aspect of this problem is the time replacement factor for timber removed from our forests. This is emphasized especially when we are told that saw-mill logs of maximum sizes take one hundred years to grow and those of smaller suitable dimensions require fifty years. Adequate fire protection is the major measure required to counteract the causes of loss and deterioration, and efficient afforestation plans to replace continually the trees which have of necessity to be used for various purposes. When we recall that practically all bush fires are in the first instance "man-made", we are very forcibly reminded of the utmost necessity for these far-sighted policies with regard

to soil, water and forests, all of which have "conservation" as their watchword.

Should any further evidence be required of these destructive habits of man, let us think for a few seconds of a striking work of the potter, Ricketts, of The Mountain Gallery at Olinda. In a work which presents the aboriginal's visualization of the white man's treatment of what was originally his own country, Ricketts portrays a most fiendish and repulsive figure with coarse animal features and powerful grasping claws on all four limbs, clutching a burnt and broken trunk of a magnificent tree, and with an axe upraised in one hand and an aerial bomb in the other. The title of this remarkable piece of work is "The White Brute", and it certainly provides a challenging jolt to any feelings of complacency and self-satisfaction which we may hold in respect of the way we are trying to manage this wonderful land we have inherited.

Road Casualties.

Another problem, ever increasing year by year, is that of the deaths and accidents on our roads. These have now reached such proportions as to become a matter of the most urgent national importance. This is best illustrated by referring to the figures for the five-year period 1944-1945 to 1948-1949, during which we find that for Australia there were no less than 6399 persons killed and 110,888 persons injured in road accidents throughout the Commonwealth. The magnitude of the loss is emphasized when we compare these figures with the service casualties of the Australian armed forces during two world wars (Figure V). These are as follows: World War I—59,342 killed and 166,819 wounded; World War II—37,520 killed and 180,864 wounded.

The irony of all this lies in the fact that the community has come to accept this loss as almost part of our every-day life in this twentieth century. And yet if we contrast these figures with those for certain infectious diseases, of which the public generally is in constant dread, the situation becomes almost ludicrous. The contrast is greatest if we represent in graphic form the relative figures for such diseases as tuberculosis, poliomyelitis, and meningococcal meningitis (Figure VI).

An epidemic of poliomyelitis is ushered in by headlines in the Press and widespread measures for the early diagnosis and treatment, with provision for long periods of after-care. The retort will be offered that poliomyelitis causes much crippling and permanent invalidity, but when one studies the numbers of individuals who are incapacitated for very long periods and even permanently invalided as a result of road accidents, the epidemic falls into almost insignificant proportions. This matter is all the more disturbing when we think of the large proportion of young adults and children who are involved in these accidents.

The whole situation is tinged with grim irony when we realize that these losses are brought about as the result of the misuse of a beautiful piece of machinery, the outcome of man's own handiwork and ingenuity. It is to be regretted that such remarkably efficient vehicles should have been turned to such a process of destruction for all too valuable lives in the community. Quite apart from the personal loss is the enormous amount of material destruction which follows these accidents; further, there is the problem of manpower and hours of work involved in repairs, which could be much more profitably employed in productive spheres. The frightening degree of this wastage is shown by the following figures (Table I).

The figures from one company alone indicate that over the same five-year period the number of claims increased threefold, while the total amount paid in claims increased fourfold.

As a further indication of the amount of wastage, it is shown that in 1945-1946 approximately one insured vehicle in nine was involved in an accident causing damage to the vehicle, whereas in 1949-1950 approximately one in six made a claim. In addition, third-party risk claims in one period of twelve months amounted to £820,143, for which the total premiums paid in the same year amounted to £694,213.

A further repercussion from these road accidents is the strain placed on hospital accommodation to provide the necessary treatment for the persons involved. The extent

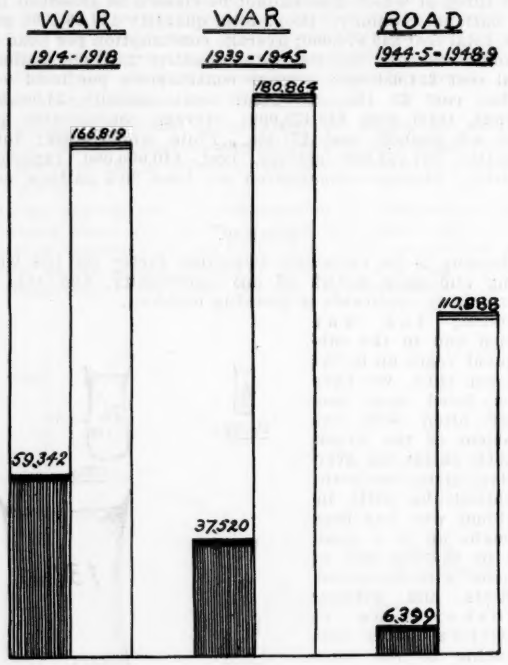

FIGURE V.

Deaths from tuberculosis, road accidents, meningococcal meningitis and poliomyelitis.

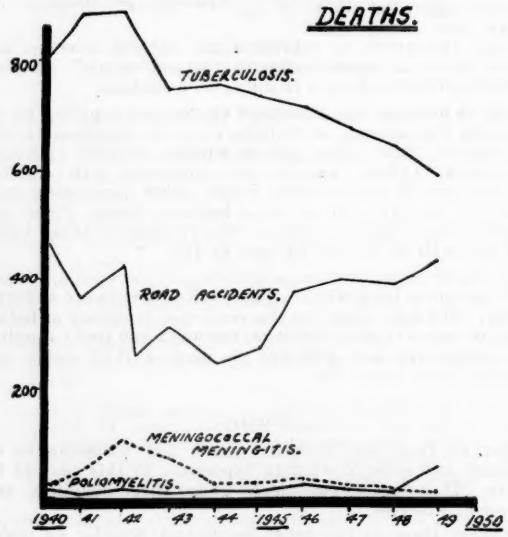

FIGURE VI.

Comparison of numbers killed and injured in road accidents in Australia and Australians killed and wounded in two world wars.

of this aspect is shown in the following data: Average number of accident cases per year in Victoria (as supplied by the Hospitals and Charities Commission)—in-patients,

1656; out-patients, 3469. Daily average of beds occupied by such patients *per annum*—104. Average stay in hospital of such patients—23 days. Average cost per bed occupied for 1949-1950—£636.

These requirements for hospital accommodation, and for nursing and medical and surgical attention, could be well utilized for the many individuals who cannot be found accommodation for urgent illnesses. As an interesting comparison, one may quote at this point the five most frequent causes of death in our own State: diseases of the heart, 7000 *per annum*; cancer, 3000 *per annum*; intracranial lesions of vascular origin, 2500 *per annum*; pneumonia, 1100 *per annum*; nephritis, 1000 *per annum*.

TABLE I.

Material Damage Resulting from Road Accidents Involving Motor Vehicles (Victoria).

Year.	Number of Motor Vehicle Damage Claims.	Amount Paid.
1945 to 1946 ..	25,000	£561,100
1946 to 1947 ..	44,200	£967,000
1947 to 1948 ..	50,250	£1,218,700
1948 to 1949 ..	63,750	£1,604,000
1949 to 1950 ..	80,150	£2,180,000

It will be seen at a glance that the cardio-vascular diseases combined (9500) provide approximately three times the number of deaths caused by cancer, which in turn is responsible for three times the number due to either pneumonia or nephritis.

It is also worthy of comment that all five groups of the most frequent causes of death are made up of conditions of which we do not yet fully know the ætiology, or the precipitating or exciting causes, nor have we any really specific treatment for them.

In some directions an estimate has been made of the annual loss to the State resulting from the various types of material destruction which have been discussed in this address. It is, of course, well nigh impossible to quote any monetary equivalent of the loss of lives which has resulted from the various destructive forces in operation, but it does provide some food for thought if we consider that the immigration authorities regard successful migrants brought into this country from overseas as being equal to an asset to the country of £10,000 per head.

Judged by this basis for calculation, it will be seen that the equivalent loss to the State as a result of deaths from causes which could and should be prevented will reach colossal proportions—for example, road deaths alone in Australia account for a loss of 6400 multiplied by £10,000, or the equivalent of £64,000,000 for the five-year period, or approximately £13,000,000 *per annum*.

In our own State measures to cope with this problem, serious as it is, have surely been started at the wrong end. It is entirely the wrong approach when the Government, through the Hospitals and Charities Commission has planned to build large accident blocks at two of the largest general hospitals in the city to cope with the increasing number of people injured in road accidents. As I have often mentioned, almost all these casualties are preventible, and the enormous outlay for such hospital buildings and the staff to service them—even if available—could be very much better devoted to providing extra accommodation and nurses for the urgently sick, for whom at the present time the chances of obtaining a hospital bed at short notice are very remote.

"Can We Apply the Brakes?"

So much for the presentation of "Destruction and Death", and now follows the question "Can We Apply the Brake?".

With regard to the infantile deaths, the closest cooperation between the obstetricians and the pædiatricians may help to solve the problem of prematurity, and with it diminish the number of neo-natal deaths. Concerning bronchopneumonia in infants, bacteriological investigation to determine the predominating organism in the respiratory tract helps to select the appropriate form of chemotherapy for the individual infant. This certainly offers a much more specific form of therapy than any we have had in recent years.

Referring to teeth, we need close liaison between the dental and medical professions in combined discussions, and what is more important concerted action. This should include an active approach to politicians and the governments of the country with regard to correcting the type of food in the national diet which both professions are satisfied is entirely wrong and injurious to the health of the people. Surely if we know these facts and are satisfied that the opinions are right we should have the courage of our convictions and work assiduously to have them put into practice for the benefit of our citizens. Words will not take us very far in this direction, but action will achieve something really worth while.

As to housing, we as a profession cannot emphasize too strongly the importance of satisfactory housing for the welfare and contentment of the whole community. Our experiences of all the complications resulting from unsatisfactory housing conditions should be consistently brought before those in authority who are responsible for dealing with this huge problem.

Turning now for a moment to the country and its problems of soil, water and forests, we have in our own State very efficient authorities for dealing with these problems, namely, Soil Conservation Authority, State Rivers and Water Supply Commission and the Forests Commission, and our early legislators are to be congratulated for their foresight in establishing these departments for the betterment of the country and for the sake of the welfare of the nation as a whole.

Road casualties are simply appalling, and particularly is this so when we realize that at least 90% of the present wastage is preventible and should never have occurred at all. The position was aptly described by a former President of our Branch when he said that we now have "thirty-mile-an-hour brains, in charge of fifty-mile-an-hour bodies, driving seventy-mile-an-hour machines".

Stricter and more numerous police patrol cars would materially reduce the number of road accidents. Also, in cases of a fatal accident, the deregistration of the vehicle for a period of three months or the refusal of insurance companies to cover damage to the vehicle under these circumstances would act as a sharp deterrent. Should such measures show no appreciable improvement, the compulsory fitting of "governors" to the engines to prevent more than a certain speed being possible would become a justifiable procedure.

When it is remembered that the cause of most of the fatal accidents is speed, careless driving, ignoring of signals or alcohol, it is worth recalling an excellent slogan exhibited in Perth in a very prominent position overlooking a steep street running through the city; it reads "Take It Easy —Speed Kills"—certainly good advice, but ironically it was placed on top of a large block of government offices. Another very important measure is the development of better road manners on the part of drivers generally, and the idea of having at least some thought for the "other fellow".

Very little is actually known as to the ætiology of the most severe killing diseases—cancer, cardio-vascular disorders, nephritis and pneumonia—and further intensive clinical study and research work will doubtless provide the answer in due course.

For the world as a whole the future outlook is anything but reassuring when we endeavour to imagine the results of the application of man's most recent scientific achievements to the settlement of international disputes. I refer to the threat of atomic warfare, together with its accessory destructors, chemical and bacterial warfare.

The scale of death and destruction which can result from these methods is almost beyond human comprehension, and

yet we must prepare for such eventualities. Faced with the prospect of 250,000 or even 500,000 casualties at one stroke, the medical services may have to make such ruthless decisions as to leave a group of, say 50,000 human beings simply to die because they are beyond the possibility of any means of succour, while provision is made for some assistance for, say, 200,000 who may have some prospect of eventual survival.

Such thoughts recall some short verses which appeared in the London *Punch* of March 17, 1948, and which seem to be so peculiarly appropriate as to warrant quoting. They are as under.

In Some Sad City.

Though we have sought the tyrant's fall,
And hurried at the victim's call;
Though we have passed with conqueror's tread
Amongst the vanquished and their dead;
Though we have hung the guilty men
And blandly said that not again
Will rogues like these be free to plot—
Yet in some cared-for cosy cot,
Tomorrow's tyrant safely sleeps,
And faintly from the rubble heaps
Of some sad city, childish cries
Point where tomorrow's victim lies.

Until some better spirit of cooperation and mutual understanding prevails at the family or the municipal levels, or on a national or international plane, we cannot hope for very much improvement, and this reminds us of an old verse:

The mills of God grind slowly, but they grind exceedingly small,
The wheels go round so gradually they scarcely move at all.
But the souls of men fall in, and are ground into the dust
From which shall spring the passion plants of faith, and hope, and trust.

Curiously enough, we in our profession have had much to do with these three attributes of faith, hope and trust. Our patients have faith in us that we will do what is the best possible for them, and we in turn have faith in our patients to carry out what is asked of them.

We always hope that we have mapped out for our patient what will be the correct course for him, and he in turn hopes that we are giving him of our best; finally, our patients trust us with confidences which they sometimes will not tell even the clergy. Such are the responsibilities placed on practitioners almost every week, and up to such ideals must we always strive to live.

During the past year we have had a formal demonstration of our faith in spiritual beliefs in the services for the medical profession in the cathedrals of Melbourne; there has been a series of lectures by one of our well-known members on "The Faith that Heals" as a memorial to a minister of religion who was also a medical practitioner; finally, I have known some of our members who have such faith as to have prayed with relatives of their patients in times of a critical illness. Until we develop a more Christian spirit in our work, carried up to international levels, we can only expect more and more destruction and death in our midst.

Conclusion.

An attempt has been made to present to you some few facts about the amount of death and destruction which is occurring in our community year in year out. Sad to relate, very little notice is taken of these data and certainly no action instituted to minimize the losses. Therefore I have endeavoured to answer the question "Can We Apply the Brake?" by offering some practical suggestions for each of the individual groups.

Should this short paper stimulate the profession into some thought and action with regard to these problems I shall feel that my efforts, during my presidential year now terminating, have been well rewarded, and in the words of Longfellow,

And, departing, leave behind us
Footprints on the sands of time.
Footprints, that perhaps another,
Sailing o'er life's solemn main,
A forlorn and shipwrecked brother,
Seeing, shall take heart again.

Acknowledgements.

Grateful appreciation and thanks are acknowledged by the author for information, literature, photographic slides and statistics so generously supplied by the following: the Commonwealth Statistician, Canberra; the Victorian Government Statist; the Soil Conservation Authority of Victoria; the Forests Commission of Victoria; the Housing Commission of Victoria; the Hospitals and Charities Commission of Victoria; the State Rivers and Water Supply Commission of Victoria; the Victorian Automobile Chamber of Commerce Insurance Company, Limited; Dr. Mary Lane, Chief Medical Inspector, School Medical and Dental Services, Victoria; Dr. Gershon Bennett; Mr. N. G. Wallace, Superintendent, Dental Hospital of Melbourne; Mr. R. S. Forbes, Secretary, National Safety Council of Australia; Mr. Howard Barrett, Manager and Secretary, Children's Hospital, Melbourne; Mr. Murphy, Photographic Department, Children's Hospital, Melbourne; The International Harvester Company of Australia, Proprietary, Limited.

ACUTE ANTERIOR POLIOMYELITIS.[1]

By S. G. BRADFIELD,
Sydney.

TONIGHT I propose to discuss the clinical aspects of acute anterior poliomyelitis, and in particular the diagnostic problems I have encountered as a member of the panel of diagnostic consultants appointed at the commencement of the poliomyelitis epidemic. The manifestations of the disease are many and varied and on occasions one is left in doubt even after a careful history, a painstaking physical examination, and an examination of the cerebro-spinal fluid.

The typical history of a case of acute anterior poliomyelitis shows three stages: a prodromal stage, a spinal stage and a paralytic stage.

In the prodromal stage there is a short febrile illness without any special characteristics. This stage may be transient and last for a few hours or for a few days.

One small boy was taken to Coogee beach one Sunday, and while on the beach felt "off colour". He attended school the following week, but on the next Monday (that is, eight days later) he developed paralysis of the lower limbs.

This stage has been more pronounced in young adults who have spent two or three days in bed with so-called influenza, have returned to work, and a few days later have developed spinal or paralytic symptoms, or both.

I do not think it possible to make a diagnosis during the prodromal stage. I do believe, however, that any child or young adult who has unexplained pyrexia, however mild, during an epidemic of poliomyelitis, should have adequate rest for several days. This precaution should lessen the severity of paralysis by avoiding activity in the pre-paralytic stage, and should also limit the number of contacts and so lessen the spread of the disease.

The prodromal stage is frequently absent or passes unnoticed. If present, it is followed by a period of remission of symptoms and then typically by the spinal stage. In many subclinical infections the spinal and paralytic stages fail to develop.

In the spinal stage the common symptoms are fever, headache, anorexia, nausea, vomiting, drowsiness, pain in the back or the back of the neck, pain in the limbs, the chest, *et cetera*. The signs are those of meningismus—that is, neck stiffness, spine stiffness—with a complaint of pain in the back or the back of the neck on flexion of the spine and neck; Kernig's sign, which may be absent and is usually seen only in patients with pronounced neck and spine stiffness; muscle tenderness; the tripod sign of Amos, which is due to a stiff back, and possibly some weakness of the trunk and abdominal muscles.

[1] Read at a meeting of the New South Wales Branch of the British Medical Association on October 26, 1950.

The third stage, the paralytic stage, may occur simultaneously with the spinal stage, or may follow immediately upon it; or there may be a short interval of improvement between the two stages. Sometimes the prodromal and spinal stages are both missed, and the paralysis is the first manifestation noted. In the paralytic stage there is paresis or paralysis of any muscle or muscle group in the body. Sometimes only a single muscle or group of muscles is affected. More frequently a number of muscle groups scattered throughout the body are involved. In the patients I have examined, the muscles of the lower extremities have been involved early somewhat more frequently than those of the upper extremity or of the trunk; perhaps this is because I have found it easier to detect weakness in the lower extremities.

The deep reflexes in the segments corresponding to the paralysed muscles are diminished or absent. Just prior to the onset of paralysis the deep reflexes may be exaggerated for a short time.

Head lag is an important sign and is shown when the neck muscles are affected.

In bulbar paralysis there is considerable variation in the early symptoms. Extension of these symptoms may occur rapidly, with rapid deterioration of the clinical picture. In cases of bulbar paralysis, removal to hospital is an urgent necessity because of the likelihood of respiratory failure. The symptoms in bulbar paralysis are difficulty with respiration, weak respiratory movements, cyanosis, weak ineffective cough, difficulty in swallowing, nasal tone to the voice, and pain in the chest.

In the encephalitic type of poliomyelitis there is considerable mental disorientation—the patient may be stuporose or comatose; in the other types of the disease the brain remains clear and the patient alert, and this fact aids clinically in the diagnosis from meningitis.

Differential Diagnosis in the Spinal Stage.

Almost any febrile illness can cause meningismus. Those conditions in which I have encountered it include pneumonia (seven cases), acute pharyngitis (six cases), acute tonsillitis (four cases), acute *otitis media* (four cases), upper respiratory tract infection (three cases), meningitis, pyelitis, Sonne dysentery, pyrexia of unknown origin (10 cases, with negative cerebro-spinal fluid findings).

Where definite clinical signs of another specific febrile illness are present, one can usually be certain that the case is not one of poliomyelitis. However, I have encountered three cases in which pneumonia and poliomyelitis occurred simultaneously.

Two of the patients were brothers admitted on consecutive days to the Royal Alexandra Hospital for Children; each showed slight neck stiffness and definite back stiffness. Each was found clinically to have right apical pneumonia, confirmed in one case by X-ray examination. Each had cerebro-spinal fluid findings consistent with poliomyelitis, and each developed muscle weakness.

The third patient was a boy, aged five years, who was admitted to the Royal Alexandra Hospital for Children on August 19, 1950, with a history of a cough for a week, worse for twenty-four hours, and of fever, headache, vomiting, and drowsiness for twenty-four hours. His temperature was 103·6° F. On examination he showed signs of pneumonia at the base of the left lung, and also some neck and spine stiffness. Lumbar puncture was performed and the cerebro-spinal fluid was normal. On the morning of the following day he had a convulsive seizure and lumbar puncture was performed again; on this occasion the cerebro-spinal fluid findings were consistent with poliomyelitis (121 cells per cubic millimetre, 57% neutrophile cells and 43% monocytes, and 40 milligrammes of protein *per centum*). This patient subsequently developed pareses.

There are a number of cases classed as pyrexia of unknown origin. In each of these there was a febrile illness with meningismus, and in each the cerebro-spinal fluid findings were normal on lumbar puncture. It is quite likely that some of these were really cases of acute anterior poliomyelitis; and in one case at least I now feel certain that this should have been the diagnosis.

This patient was a lad, aged nineteen years, examined on January 20 with a history of two days' illness with fever, headache, and pains in the neck and shoulders. Examination revealed slight neck stiffness, no spine stiffness and no Kernig's sign. Lumbar puncture produced clear cerebro-spinal fluid containing three cells per cubic millimetre and 20 milligrammes of protein *per centum*. He was kept in bed for several days and then returned to work. He had no sequelæ, but reported later to his own medical attendant that two of his workmates had fallen ill at approximately the same time, with similar symptoms, and each had been admitted to the Prince Henry Hospital with paralysis.

During February I examined three boys, aged between five and ten years, each presenting similar clinical pictures. They had a short febrile illness with moderate neck and spine stiffness, and all had clear cerebro-spinal fluid. None developed any sequelæ, and I believe that if these children had been suffering from poliomyelitis it is unlikely that all would have escaped paresis. They were probably suffering from an infection in the naso-pharynx, and the neck stiffness was due to inflammation in the retropharyngeal lymph glands.

Other conditions which have been confused with poliomyelitis on account of apparent neck and spine stiffness have been fibrositis (when affecting the back or the neck), inflammatory lesions of the neck, cervical adenitis, *herpes zoster* affecting the thoracic region of the back, and tetanus.

Differential Diagnosis in the Paralytic Stage.

In the paralytic stage the following conditions may be confused with poliomyelitis.

1. Apparent paralysis or paresis of limbs in young children following trauma. The trauma may have been unnoticed by the parents, and there may be no visible injury. In these cases the absence of a recent history of illness, the absence of meningismus, and the good health of the child are against poliomyelitis, and after a few days the child is found to be using the limb once again in a normal fashion.

2. Muscular incoordination due to drug therapy. One case was due to "Benadryl" and one to phenobarbital. The dosage in each case was within the range customarily used for children.

3. Fibrositis affecting the limbs.

4. Acute rheumatic fever (five cases). The presence of a joint swelling, even though it is slight, the severe pain on movement of the affected joints, and the attitude of the limb held fixed in the position of greatest ease, all distinguish the apparent weakness of painful rheumatic joints from true paralysis.

5. Acute osteomyelitis (three cases). The presence of pain, tenderness and swelling localized over a bone, and the severe pain on movement of the limb, distinguish this condition from true paralysis.

6. Apparent weakness of the lower limbs in young children with pneumonia or other severe illness. The history given is that the child has become "weak on the legs" or "unable to walk"; but examination reveals normal reflexes and no actual muscular weakness. The apparent weakness of the lower limbs is really the general muscular weakness of severe illness.

7. Sequelæ of cerebral trauma. One child showed an ocular paresis some days after a head injury (he was afebrile); another showed muscular incoordination in the lower limbs, exaggerated deep reflexes and some spasticity, probably due to a subdural hæmatoma.

8. Nerve weakness from other causes. There were two cases of lesions of the spinal cord, and in one case of pyæmia the right brachial plexus was involved in an inflammatory swelling.

Value of the Cerebro-Spinal Fluid Findings.

Lumbar puncture and examination of the cerebro-spinal fluid are valuable in obtaining confirmation of a diagnosis of acute anterior poliomyelitis. I have taken 10 cells per cubic millimetre as the upper limit of normal, and a figure

of 30 milligrammes of protein *per centum* in the child and 40 milligrammes *per centum* in the adult. It is important to realize that a negative finding in the cerebro-spinal fluid does not exclude poliomyelitis, even though there are pronounced signs of meningismus at the time when the fluid is taken. On several occasions I have seen children suspected of poliomyelitis give a normal cerebro-spinal fluid finding; but on account of strong clinical evidence the lumbar puncture has been repeated one or two days later, and at the second examination the cerebro-spinal fluid findings have confirmed a diagnosis of poliomyelitis. These patients have all been in hospital, and most have shown definite paralysis. Possibly in some of the cases I have classed as pyrexia of unknown origin positive cerebro-spinal fluid findings might have been obtained if lumbar puncture had been repeated. To the best of my knowledge, none of these patients have developed paralysis. In all cases of doubt it is wise to reexamine the patient after two or three days.

One must remember that a similar picture is shown in the cerebro-spinal fluid in cases of encephalomyelitis of mumps, measles *et cetera*, in lymphocytic choriomeningitis, and in early cases of tuberculous meningitis.

TREATMENT OF ANTERIOR POLIOMYELITIS.[1]

By W. DOUGLAS STURROCK, F.R.C.S.,
Sydney.

IT is now generally agreed that the orthopædic surgeon's responsibilities begin with the onset of paralysis occurring in a patient suffering from acute anterior poliomyelitis, and from the surgeon's point of view it would be best if it was possible to treat the patient in an orthopædic ward. For obvious reasons this cannot be done until the recognized period of isolation has elapsed. However, the patient in the isolation or fever hospital who develops paralysis should be examined at the earliest opportunity by the orthopædic surgeon, and facilities should be available for him to order such treatment as he thinks necessary.

Treatment of paralytic poliomyelitis must be based on our present knowledge of the pathology of the disease, which admittedly is incomplete, and also on the natural processes of recovery. It is owing to our incomplete knowledge that we still find variations in the methods of therapy.

Pathology.

Changes in the Nervous System.

The anterior horn cells are partially or completely damaged. If the damage is complete, axonal degeneration follows and the muscles supplied by the affected neurons are permanently denervated. On the other hand, neuronal damage may be mild, with no resulting degeneration of axons and no significant structural changes in the muscles, and recovery occurs in a few weeks or months. The important question is whether there is an intermediate group in which axonal regeneration may occur; if this could be proved, then there might be some justification for prolonged treatment such as is necessary in injuries to peripheral nerves. The electrical reactions of muscles in patients suffering from poliomyelitis have been studied by several investigators, and in no case has the electrical reaction of a denervated muscle later become the reaction of an innervated muscle; consequently the theory of axonal regeneration is not substantiated. Also, the usual time of recovery for muscles, when it does occur, is within four to six months as compared with that in peripheral nerve injuries at the rate of one to two millimetres per day. The calf muscles in a high sciatic nerve lesion will not be innervated for twelve to eighteen months.

The posterior root ganglion may also be affected, with temporary changes in sensation. Hyperæsthesia occasionally occurs early in the disease. The muscle spasm which Sister Kenny and some writers describe is difficult to explain.

Changes in the Muscles.

Changes in the muscles are changes of atrophy consequent on denervation and are not degenerative in nature. For years there has been a great fear that denervated muscle will degenerate if not handled with extreme care, but it is found that it retains its essential histological structure and excitability for several years after all voluntary power has gone. The affected muscles waste rapidly, but even this can be prevented by appropriate electrical stimulation with strong enough current for sufficient duration; this, however, does not justify its use in treatment. Our main object, then, in mechanical treatment, is the prevention of overstretching of the muscles. Sister Kenny condemns splinting outright, but most orthopædic surgeons agree that judicious splinting is essential in the early treatment, otherwise contractures will occur. Even normal muscles weaken if stretched for too long. Everyone knows that contractures will develop if healthy muscles are allowed to shorten at the expense of paralysed antagonists. It is not so clearly recognized that shortening takes place in paralysed muscles. Denervated muscle undergoes interstitial fibrosis, and this tissue, like scar tissue, will contract. Œdema also leads to stiffness. The lymph flow is unaided by contracting muscles, and transudation of fluid occurs, especially in the dependent limb, followed by coagulation of this fluid. Later fibroblastic activity results in fibrosis in muscles and around joints and tendons. It is seen from a knowledge of these changes that our treatment must be controlled activity and not rest.

Prognosis.

The mortality of the disease is usually between 5% and 10%. Of the survivors approximately one-third completely recover, one-third are left with a certain amount of residual muscle weakness, and one-third are more or less permanently paralysed. The return of muscle power is very erratic; generally if power begins to return in a limb in a few days the outlook is good, but it can be said that with the avoidance of deformity almost every patient can be restored to walking with the help of various forms of apparatus and perhaps operative treatment.

Treatment.

Realizing that recovery depends upon the spontaneous return of function of the anterior horn cells, the orthopædic surgeon has two main duties: (i) to maintain the peripheral parts in the best possible condition, so that recovery may not be vitiated by changes in muscles, tendons and joints causing contractures and deformities; (ii) if recovery is not complete, to teach the patient to make the best use of what remains by physiotherapy, and later with the use of braces, splints and reconstructive surgery to assist the patient to return to useful activity.

No recent advances in treatment have been made, but it is important to know when and for how long we should apply the methods at our disposal.

As soon as the initial illness is over a systemic examination of the patient should be carried out with care, gentleness and patience. Usually the paralysis is maximal at the end of the first week, and it is then that the extent of the damage should be assessed. Provided it is done gently, this complete examination is not harmful. Occasionally, it is preferable to divide the examination into two sessions so as not to tire a patient with extensive muscle paralysis. With children too small to cooperate, patience is essential, and it is necessary to resort to tickling and stroking the skin of the limb and trying to make the child reach for an object.

The muscles can then be systematically charted and graded so that progress can be assessed. The grading of the standard chart now being introduced is from 0 to 6, made up as follows: 0, no contracture at all; 1, a flicker in the muscle; 2, a movement with gravity eliminated; 3, a movement against gravity; 4, a movement against gravity

[1] Read at a meeting of the New South Wales Branch of the British Medical Association on October 26, 1950.

and slight resistance; 5, a movement against gravity and firm resistance; 6, a normal muscle.

Ideally this charting should be carried out at weekly intervals for the first few weeks and later at two-weekly or three-weekly intervals.

Prevention of Faulty Posture and Overstretching of Muscles.

The damage having been assessed, the prevention of faulty posture and overstretching of affected muscles is the next step in treatment. This does not mean immobilization, and the use of rigid frames with the limbs tied to them with buckles and straps is to be condemned when the patient is an adolescent or an adult. This prevention of all activity except when the physiotherapist is in attendance, at the best for two periods of half an hour daily, can do no good. The patient rapidly develops an "immobilization complex" and fears that any movement that he could make would result in harm.

The choice of methods should be as follows.

1. For spinal and abdominal muscles an adult requires a firm mattress; an unruly child will require restraint on a frame, such as a Bradford frame, a Jones frame or a McNamara frame.

2. For shoulder muscles the arm can be comfortably abducted to 60° to 70° in neutral rotation on pillows with the elbow flexed if there is paralysis of the biceps.

3. The wrist is supported on a short cock-up splint of plaster, light metal or plastic, the splint not reaching further than the palmar crease of the hand.

4. The thumb should be brought into the position of opposition with a light shoe-horn splint.

5. The affected intrinsic muscles of the hand should be controlled by a type of "knuckle duster" splint which flexes the metacarpo-phalangeal joints and extends the inter-phalangeal joints.

6. The hip is placed in neutral rotation, a few degrees of abduction and slight flexion by the use of pillows.

7. The knee is slightly flexed on a small pad or pillow.

8. The foot can be controlled with a board at the foot of the bed and a cradle to lift away the bed-clothes, but a light plaster splint or padded metal splint is more certain in its effect and preferable.

Splints must not be bandaged on tightly, as the restriction of the circulation of blood and lymph may be impaired.

Passive Movement.

As soon as the patient is afebrile and free from severe pain, the paralysed part should be put through a full range of passive movement twice each day. The presence of some pain on movement is not a contraindication, and often the pain is relieved. Sister Kenny has been responsible for reintroducing early movements, and anyone who has seen her methods in use at this early stage in the disease cannot fail to be impressed with their efficacy. Joints remain freely movable and the lymphatic flow is aided. The limbs must be handled gently.

Heat.

Heat undoubtedly relieves pain and tenderness. The frequent application of hot compresses, as advocated by Sister Kenny, is hardly necessary and requires a huge staff in order to change the compresses, which rapidly cool. Hot baths are sometimes used, but again obvious difficulties make their use in most hospitals impracticable.

Massage.

Massage is useful in reducing œdema, but elevation of the limbs and frequent passive movement are equally effective.

Electrical Stimulation.

Electrical stimulation, for reasons which have been stated, will not benefit muscle recovery, and sufficient current to produce stimulation is often unpleasant and in fact painful for the patient.

Muscle Reeducation.

The physiotherapist first concentrates on individual muscles, assisting the recovery of muscles by eliminating gravity and resistance, the important muscles such as the quadriceps receiving the most attention.

Later the physiotherapist's attention is directed towards group movements. Gravity and resistance at first are eliminated by holding the limb and later by the use of well-powdered highly-polished boards and, perhaps best of all, by suspending the affected limb in a Guthrie-Smith bed or similar apparatus. As power improves resistance may be increased.

Later, when it is apparent that recovery is very incomplete or there is none in certain muscles or groups of muscles, trick movements can be taught and encouraged.

Underwater Exercises.

The facilities for underwater exercises are often lacking in Australian clinics. A bathing pool with a gradually sloping bottom to a depth of four to five feet and with an underwater plinth is the ideal. Movements which are impossible except in the water are often easily performed, and the patient will learn to walk much more easily and with confidence when walking is carried out in water.

Occupational Therapy.

Occupational therapy has a definite place in encouraging and developing group movements and prevents the patient from becoming bored and lethargic during prolonged recumbency.

Almoner Functions.

During recent epidemics when adults have been afflicted with the disease, the hospital almoner should be asked to visit the patient early. The worry of an adult with family responsibilities over financial and housing difficulties may be very detrimental to recovery.

Duration of Treatment.

The duration of treatment—especially the necessity for bed rest—appears to be a problem on which many surgeons have greatly divergent views. Any muscle which has no function at the end of four months can for all practical purposes be written off. Rarely between the fourth and sixth months a faint flicker may develop, but this cannot develop to any useful function. The electrical reaction of the muscles can be used as a reliable guide, as a muscle reacting only to galvanism will not recover. It would not appear wise to encourage very early ambulation, as is done in certain American clinics, but surely after six months, when a fairly accurate assessment of the final paralysis can be made, an attempt should be made to make the patient ambulant. Too often patients are seen who have been told that they must remain on their backs for twelve to eighteen months, when careful examination of their spinal and abdominal muscles reveals no paralysis and only one lower limb is affected. I have never seen a muscle which reaches a power of four on the chart regress permanently if it is encouraged to assist in weight-bearing after four to six months' treatment. Children, of course, may quite late develop power in a muscle group, not because the power was not there, but because they are incapable of understanding how to develop it.

Late Treatment.

The stage is then reached when, with the aid of suitable light braces, calipers and splints, the patient can be allowed out of bed. The patient who can move about, attend to his daily needs and even perform useful work with a slight scoliosis or *genu recurvatum* is much better off than one so encumbered by metal appliances that his mode of progression is greatly restricted, even though he has no deformity. This is not meant to advocate the neglect of commencing severe deformities.

Reconstructive Surgery.

Lastly, mention should be made of reconstructive surgery.

This final means of treatment cannot be undertaken until all possible power has developed in weakened muscles and until the patient has developed his trick movements which may restore useful movement to a joint.

The final aim is to have a stable lower limb on which to walk and a hand which can be used to its best advantage.

The operations of greatest use are, first, those of arthrodesis of certain joints for stability, notably in the foot and spine, and secondly the transference of certain tendons or muscles to assist other weakened muscles.

Sympathectomy and leg-equalizing operations may rarely have a place in treatment.

SOME PROBLEMS IN GENERAL PRACTICE.[1]

By LESLIE HURLEY,
Melbourne.

My first duty is to thank you for the honour you have done me in asking me to address you tonight. I am deeply conscious of the responsibility you have placed on me, and this is in no way lessened by the fact, of which you are doubtless all aware, that I am unable to announce any discovery in medical science, or even to formulate any new or attractive hypothesis. I have therefore decided to discuss with you some of the problems met with in general practice, with particular reference to the functional and environmental aspects of disease.

Since the dawn of the present century numerous and far-reaching discoveries of fundamental importance have been made in the science of clinical medicine. It is becoming more and more difficult for the busy general practitioner to keep abreast of the many advances in medical knowledge, and what is even more important, to place them in their proper perspective.

This vast accumulation of knowledge has resulted in many changes of a fundamental character in the general structure of medical practice, and incidentally also has created many problems in medical education.

Perhaps the most important changes which have occurred concern the rapid growth of specialism and the lack of appreciation of the fundamental importance of environmental and psychological factors in the causation of symptoms and even of actual organic disease. In many of our teaching hospitals, apart from the pure specialists, many of the general physicians and surgeons, who are responsible for the education of students most of whom will become general practitioners, have become partly specialized, with the result that insufficient instruction is given on diseases commonly met with in general practice. In addition, the student sees the patient under totally different conditions from, and in an environment quite dissimilar to, those with which he will be faced later on when he goes into practice.

This defect in the training of medical students has recently aroused a good deal of serious discussion, and various suggestions have been made to remedy it, but as yet there is no general agreement as to what constitutes an ideal curriculum. In Edinburgh, the university has taken advantage of the buildings and goodwill left by an old charitable dispensary and has set up a university teaching general practice. In this practice the medical and ancillary staff are all full-time members of the University Department of Social Medicine and devote the whole of their time to the training of medical students in the environment of a general practice. Although sufficient time has not yet elapsed to allow the full success of the scheme to be judged, the results up to date are regarded as being very promising, and there is no doubt that it is an experiment of the greatest importance in medical education.

While it is recognized that the rapid growth of specialism was both inevitable and necessary, it is equally true that unless the specialist, in addition to being competent in his own field, has a good knowledge of general medicine and keeps himself informed of important advances in this field, his real value to the general practitioner and to the community at large will be very much less than it otherwise would be. The specialist who becomes too highly differentiated, and who loses the ability of examining "the relation of his subject to all that is not it but is around it", is apt at an early date to develop fixed and rigid ideas and to over-emphasize the significance of minor, and at times unimportant, variations in his own restricted field.

The general practitioner should not accept without question the pronouncements of the specialist if they conflict with his assessment of the patient as a whole. The X-ray specialist should not be the final arbiter in the recognition or exclusion of a duodenal ulcer, for there may be positive findings in the absence of an ulcer, and even a chronic ulcer may not be revealed by a barium meal examination. Due consideration should be given to a full clinical history and the ordinary physical examination. It was a long time before the gynæcologist realized that backache was rarely due to a retroverted uterus, and minor and sometimes even pronounced variations may be seen in a cardiogram in the absence of any material organic disease.

Perhaps the most important effect of the recent increase of our knowledge of scientific medicine has been a failure to appreciate the full importance of considering the patient and his background as a whole, as a living entity, and not merely as a body with a physical disorder. Our attention has been so fully engaged by the recent advances in radiology, immunology, biochemistry, electrocardiography *et cetera*, that the physician has given insufficient time and consideration to the psychological, emotional, environmental and personality aspects of the patient's disease. We should avoid the temptation of trying to make a diagnosis by submitting the patient to a number of special tests hoping that one or more of them will give the answer. This is no substitute for a careful consideration of the patient's story as a whole and a full and careful clinical examination. Even if some abnormality is actually revealed by special examination—for example, gall-stones—it may not necessarily have any bearing on the patient's complaint. "It takes a man and not simply a machine to understand a man."

No apology is considered to be necessary for considering first what I think you will agree is the commonest and most important problem facing the general practitioner —the diagnosis and management of the patient who has many and often vague and variable symptoms, yet in whom a careful physical examination reveals no significant organic signs.

During my student days I had the good fortune to be taught by a physician who had a clear appreciation of the "functional aspects of disease". A patient, say John Smith, had been allotted to me as a clinical clerk. Both the history and physical examination indicated that he had lobar pneumonia, and therefore when asked by the clinician what the patient was suffering from, I confidently replied that he had pneumonia. To my surprise the answer was: "No, John Smith has not got pneumonia, but pneumonia has John Smith." The physician then proceeded to explain that, although John Smith did in fact have pneumonia, there were many other factors concerning him which might be of equal or even greater importance—for example, the condition of other important organs of his body, the environmental and emotional stresses to which he may have been subjected, and also the effect on him personally and on his disease which might result from the knowledge that he had a serious physical disorder.

In the practice of the art and science of medicine it is impossible to divorce the psychological from the physical. The state of health of any particular patient at a given time depends not only on the disease he may have recently

[1] Read at a meeting of the Victorian Branch of the British Medical Association, at Ballarat, on November 25, 1950.

contracted, but also on his general physical state and on the interaction on these of psychological, environmental and emotional factors. The development of an organic disease—for example, coronary thrombosis or even a fractured femur—in a person previously apparently healthy and not at all neurotic, may provoke an anxiety state owing to the uncertainties and insecurities attending the condition.

A patient who has had an attack of rheumatic fever and whose heart as far as can be determined has escaped any serious infection, may easily develop a cardiac neurosis unless his convalescence is properly managed, appropriate reassurance is given, and repeated and unnecessary cardiac examinations are avoided.

Man does not live by bread alone, and medicine is something more than cold physical science. Indeed, one may truthfully say that in general practice and in all branches of the healing art there are many problems that are not capable of accurate measurement.

We must recognize that man is something more than a physical being and that "bodily disturbances may be and commonly are the expression of his loves and hates, his passions and fears, his worries and anxieties".

While it is true that all disease is to some extent psychosomatic, it is equally true that a considerable proportion (possibly 40% to 50%) of patients who consult doctors complaining of various symptoms have no material organic disease. It is concerning this group of patients suffering from a psychoneurosis that I would like briefly to speak.

How can they be recognized? In what manner should they be treated? Who should be responsible for their management—the psychiatrist or the general practitioner? Are their disorders in the main due to causes capable of recognition by the general practitioner, or do they originate from conflicts and maladjustments occurring while the unborn infant is still in the mother's womb or during the first year of life? If this latter concept is true—and it has been postulated and championed by an eminent psychiatrist as the basic cause of all neurosis—then these patients would need the services of a psychiatrist, and even he might find it difficult to handle successfully a problem of this character.

While in no way attempting to minimize the advances made in psychiatry, and the development and growth of our knowledge concerning personality in health and disease, which have been made possible owing to the fundamental work of Freud, I believe that the general practitioner should and can successfully manage most patients suffering from functional nervous disorders.

It is to the general practitioner that the patient first turns for help. If much unnecessary suffering and invalidity is to be avoided, early diagnosis and prompt treatment are essential. If the condition is allowed to become established or the germ of a non-existent organic disease is implanted, cure or relief of symptoms will be much more difficult to accomplish. It is, of course, equally important not to overlook any associated organic disease.

The number of patients suffering from a neurosis is so great that if they are not treated by the general practitioner they will not be treated at all, unless the number of psychiatrists is greatly increased. Herein lies the necessity of devoting more time in the training of medical students to the functional and environmental aspects of disease.

Although it is probably true that the psychoanalytic theory, with its associated concept of the subconscious mind, has some bearing on the causation of many of the neuroses, and has explained many things which were previously obscure, it is more than doubtful whether therapy based upon this theory is always the best. Unless it is skilfully used by someone fully versed and trained in its technique, much harm can be done, and in many cases better results can be obtained by simpler means.

The technique demanded by the modern psychiatrist is so difficult and time-consuming that it is quite impracticable for the general practitioner. In addition it requires qualities of mind and intellect which are possessed by few. Even amongst the psychiatrists, physical means of therapy are perhaps used too frequently in an attempt to obtain quick results, while treatment based on modern psychological knowledge is being, to some extent at least, neglected.

Many patients, perhaps naturally, but to us rather irrationally, object to or even resent being referred to a psychiatrist. They fear that the practitioner who advises them in this manner suspects that they are of unsound mind or likely to become so, and this fear may add another anxiety to those from which the patient is already suffering.

The general practitioner is in close contact with the patient and his environment and thus has a much better opportunity than anybody else of assessing his personality and of becoming acquainted with the various emotional stresses and strains to which he may have been subjected. The patient too is often more willing to accept advice from the trusted family doctor, who has often in the past been looked to for guidance in other than purely medical matters, than he would from a comparative stranger whom he has not seen before.

It is for these reasons, therefore, which have been only briefly discussed, that it is considered that the general practitioner should be entrusted with the responsibility of the early diagnosis and management of functional disorders.

In dealing with patients, whether their symptoms are of functional or of organic origin, but perhaps even more so in the latter group, a full and careful history is essential. The patient should be allowed to tell his own story in his own way. Early in the course of taking the history the physician may suspect that he is dealing with a functional complaint. If he does he should not allow any suspicion of inattention or impatience to be transmitted to the patient. If he does, his chance of benefiting or curing him will be greatly impaired or even altogether lost. Frequently the patient will, as was first described by Charcot, produce a written list of his or her symptoms.

After the patient has finished his story it is often illuminating to take one of his main symptoms, attempt to get an accurate description of it and determine what factors tend to increase or relieve it. We will suppose that the patient complains of a headache. To the simple question "Whereabouts in the head do you get your headache?" he may reply "It is terrific". If the question is repeated, you may get the answer: "I have it now, doctor." If the question is repeated again, he may reply: "It is a feeling of something pressing on the head or a dull feeling in the head." If the question is still further pressed the patient may finally tell you that it is a most uncomfortable feeling in the head which he cannot clearly describe or accurately locate. Further inquiry may elicit the information that although the headache has been present for years without cessation there has been no loss of weight, sleep may occur even when it is present, worry or anxiety increases it and analgesics have little or no effect on it.

Why does a patient with a functional disorder "dramatize" his symptoms and why is he usually unable to give an accurate and simple description of them? It may be partly due to the fact that the language is not well provided with words to describe bodily discomforts; but in many instances the symptom is an expression of a fear on the part of the patient that there is some organic disease present at its site; for example, in the case of a headache he fears that he may lose his reason or that he has sinusitis or a cerebral tumour.

If the other symptoms complained of are dissected in the same way, it will usually be found that they also exhibit the tendency to dramatization and are described in a vague and indefinite manner.

When this applies to all the patient's symptoms, and particularly if they have been present for many years and the appearance of good health is retained, it is probable that they are of functional and not of organic origin.

In most organic disorders the symptoms conform to some fairly well-recognized pattern. Admittedly, the pattern may vary in different patients and may at times be blurred

by associated functional symptoms. It is usually possible, however, if the history is carefully and accurately taken, to recognize the general aspect or pattern of organic disease even if it is rather incomplete or imperfect. For example, in the case of a patient with a peptic ulcer or coronary disease, the history usually goes a long way towards making the diagnosis.

In functional disorders, however, it is otherwise. There may be ill-defined and vaguely described symptoms referable to many parts of the body and conforming to no known organic pattern. While the history was being taken it may have been observed that the patient exhibited an anxious and worried expression and demeanour, that a nervous blush was present on the face and neck. General inspection may also reveal hand and eyelid tremor, bitten or picked fingernails, sweating under the armpits even on a cold day, and a frothy and slightly tremulous tongue.

No matter how confident one may be that the patient's disorder is of functional origin, a full and careful physical examination should always be made, particular care being taken to examine those regions to which symptoms are referred. This should be done for two main reasons: in the first place some unsuspected organic disease may be discovered, and secondly, if a complete physical examination has not been made no reassurance to the patient will carry much conviction.

Once the history and the ordinary physical examination have been completed, it is advisable to explain to the patient that so far no organic disease has been discovered but that you are fully aware of the reality of his symptoms. This statement is then followed by a simple explanation of how emotional disturbances can cause symptoms—for example, diarrhœa, sweating, palpitation, headache *et cetera*. It is but a step to explain that continued anxiety acting over a long period of time can produce persisting symptoms similar to those of which he complains. One or two investigations appropriate to the main symptoms complained of may then be arranged, but over-investigation should be avoided. The patient should be made to feel that he has had a full investigation, but if too many general investigations are carried out he may get the idea that he has some obscure and complicated disorder which is incapable of detection by all the resources of modern science. A simple sedative mixture may then be prescribed and the patient told that he will be examined again and his case more fully discussed. At subsequent visits an attempt is made to assess more accurately the personality of the patient, and discreet and sympathetic inquiry is made for any domestic, financial, sexual, business or occupational worries or disturbing environmental factors.

Young men and women often have sexual worries, particularly concerning masturbation, and middle-aged women frequently have domestic worries, which through a sense of loyalty they are unwilling to volunteer. Once their confidence has been gained they do not resent direct questioning on these matters, and although they are only too aware of their anxieties may not have considered that their ill-health might be due to them.

Many nervous patients have as their main or even sole anxiety the fear that they either have, or are in process of developing, some serious organic disorder—for example, cancer, venereal disease, rheumatoid arthritis, high blood pressure, heart disease *et cetera*. If they can be relieved of this fear, which is often based on evidence of a most bizarre character, and if at the same time a rational and sympathetic explanation can be given for their symptoms, they are able to carry on as active and useful members of society even if they still remain anxious and worrying persons.

The fact that an anxiety state can and frequently does develop after a patient has been told that he has some organic disease—for example, high blood pressure or heart disease—is strong supporting evidence for the belief that a neurosis may develop as a result of recent emotional stresses and strains and is not necessarily due to a skeleton which has inhabited the subconscious mind for many years.

It may be objected that the general practitioner has not the time to carry out a programme as outlined above; but when one reflects how frequently a patient with an unrelieved neurosis visits his doctor, to say nothing about the numerous other doctors he consults, it would I think be admitted that in the long run a considerable saving of medical time would be achieved if the problem was fairly and squarely faced by the first practitioner the patient consulted.

Another common problem facing the general practitioner is the recognition and management of the patient with actual or supposed hypertension. Many of the minor symptoms—such as dizziness, mild headaches and full feelings in the head—usually attributed to hypertension are frequently the result of an anxiety state which developed when the patient first suspected or was told that his blood pressure was elevated.

William Evans is of the opinion that of the patients told by their doctors that they have blood pressure not more than one-half have the disease hypertension. He considers that the cause of this error "lies on the one hand with the continued absence from our teaching in medical schools and text-books, of a reliable definition of high blood pressure, and on the other with the failure to recognize the difference between a physiological state of hypertonia, and the disease hypertension". In view of the widespread invalidism caused by an unjustifiable diagnosis of hypertension, he suggests that hypertension should not be diagnosed unless the systolic pressure is 180 millimetres of mercury or over and/or the diastolic pressure is 110 millimetres of mercury on three successive occasions, and when clinical cardiographic and cardioscopic evidence of cardio-vascular hypertrophy is present.

Although there are many—and I am one of them—who would disagree with this definition of hypertension, and who regard a diastolic pressure persistently above 95 or even 90 millimetres of mercury as being abnormal, it is none the less true that many people with diastolic pressures over 100 millimetres of mercury or even as high as 120 millimetres of mercury often enjoy many years of good health, and may not have their lives materially shortened, even though on statistical grounds their chances of living to a ripe old age are reduced.

Generally speaking, the hypertensive is not in any great danger unless his diastolic pressure is regularly above 120 millimetres of mercury, particularly if it is remaining stable over a prolonged period of observation and if there is no evidence of disturbance of function in the renal, cardiac and cerebral mechanisms.

In elderly subjects systolic hypertension even up to 200 millimetres of mercury is usually of little significance provided the diastolic pressure is not materially elevated —that is, above 115 to 120 millimetres of mercury.

It is surely most unwise, and even unjust, to cause a patient in whom a moderate degree of hypertension has been discovered to spend the remaining years of his life in a continual state of anxiety.

In the time available it is not possible to discuss the subject of hypertension in any detail. A few rather dogmatic statements will therefore be made, some of which may be provocative but can, I believe, be defended.

Probably about 90% of cases of hypertension are of the "essential" type—the cause is unknown, but there is a strong familial tendency.

In patients aged under fifty years, and particularly in the lower age groups, it is worth while searching for a cause such as glomerulonephritis, pyelonephritis, hydronephrosis, polycystic disease, endocrine disturbance, coarction of the aorta and pregnancy toxæmia. In persons aged over fifty years, in whom there is no clinical suspicion of some associated or underlying disorder, no real purpose is served by subjecting the patient to a number of investigations, which may tend to focus his attention unduly on himself and his disease.

It is unwise to tell the patient the height of his blood pressure. For young people, if the diastolic pressure is not above 100 millimetres of mercury, and in older people if it is not above 110 millimetres, no particular treatment is necessary, and it is probably inadvisable to inform the

patient that he has high blood pressure—despite the fact that others may so inform him. If the diastolic pressure is above these figures, and there is no evidence of disturbance in the cardiac, cerebral or renal systems, the patient should be told that his pressure is slightly elevated, and some advice should be given with regard to the general regulation of his mode of living, and any symptomatic treatment considered necessary in the particular case should be prescribed. It is customary to limit the intake of salt, meat and spices and condiments. Alcohol in moderation is permissible. If the patient is overweight a suitable reduction diet should be ordered. Mild sedation with bromide, phenobarbital and drugs of the aminophyllin group combined with phenobarbital, often gives some symptomatic improvement.

The thiocyanates, first introduced by Pauli in 1903, have been in and out of vogue intermittently since then. There is no doubt that, if their administration is properly controlled, some fall in blood pressure can frequently be attained. In some patients, however, there is very little or no margin between the toxic and the therapeutically effective dose. It is problematical whether the uncertain benefits of this treatment are worth the trouble and the risk attending its use. It may have some place in relieving patients complaining of severe headaches and with high diastolic pressures who are not deemed suitable for sympathectomy. The thiocyanates should not be used if there is any material impairment of renal function.

I have very little experience in the use of the rice diet introduced by Kempner. Most patients to whom it has been suggested have asked for some other mode of treatment. The opinions of those who have used it under strict control vary considerably as to the results obtained, and the reasons for any improvement that may have been observed. There appears to be no doubt that this diet will sometimes significantly reduce the blood pressure, but that it returns to previous levels when the patient reverts to a normal diet and also usually when salt is added. H. A. Schroeder concluded, after a careful trial of a diet consisting of unsalted rice, fruit juices and vitamins, that it was of questionable value in the treatment of most patients with hypertension. Few patients have sufficient moral courage to persist with the treatment, but it probably has a place in the management of severe hypertension accompanied by symptoms not relieved by other methods of treatment.

It is difficult to assess the value of sympathectomy, because the published results from different sources vary considerably. The main difficulty in selecting patients for operation lies in our lack of knowledge concerning the natural history and course of hypertension. If patients with moderate or even severe degrees of stable hypertension are subjected to operation, many may be unnecessarily subjected to surgical treatment. If on the other hand one waits too long after the condition has declared itself as a dangerous and progressive disease, the opportunity for effective surgical intervention may be allowed to pass by.

My own experience has been limited to about 24 cases which have been selected from the following groups: (i) patients aged under forty-five years, in whom there is evidence that the diastolic blood pressure has rapidly mounted in the preceding few years to about 140 millimetres of mercury or more; (ii) patients aged under fifty years with high diastolic pressures and severe headaches which have not responded to other measures; (iii) patients with malignant hypertension. In all cases, renal and cardiac function has been good and excretion pyelograms have revealed no significant abnormality.

On the whole the results have been disappointing. The most gratifying result has been the relief of headaches. In not more than about one-third of the cases has there been a significant fall in blood pressure for more than a few months.

The diagnosis of a toxic goitre from an anxiety state, or from a small diffuse non-toxic goitre with nervous symptoms, can be difficult. It is most important that a correct diagnosis should if possible be made, because surgical treatment or the exhibition of thio drugs can do no good, and may do harm, if employed in the management of a patient with an anxiety state or a small diffuse goitre with nervous symptoms. Apart from the risk of toxic complications, the thio drugs, if used in either of these conditions, may cause considerable hyperplasia of the thyreoid gland.

Tremor, tachycardia and sweating are common to all the above-mentioned conditions and may also be seen in low-grade infection, and should not without further evidence be regarded as being strongly suggestive of thyreotoxicosis.

The basal metabolic rate, particularly when estimated in the ambulatory patient, can be most misleading. It is often elevated from pure nervousness, and also in conditions other than hyperthyreoidism—for example, anæmia and leuchæmia. It may also be normal in periods of remission in a patient with thyreotoxicosis, and in the so-called masked cardiac conditions following on long-continued low-grade hyperthyreoidism.

Errors may also arise from a failure to recognize that the normal basal metabolic rate varies between about −10% and +15%.

Before one diagnoses hyperthyreoidism, there should be some evidence apart from tremor, tachycardia, sweating and thyreoid enlargement. Any definite eye signs, such as exophthalmos, lid lag, swelling of the lids and undue "stare", speak strongly for hyperthyreoidism. Clinical evidence of increased metabolism—for example, a good appetite with loss of weight, warm moist skin, high pulse pressure, increased tolerance to cold weather and elevated sleeping pulse rate—is of the greatest importance. The presence of a bruit over the enlarged gland, although not diagnostic of thyreotoxicosis, is suggestive of it. The thyreotoxic patient is often restless, fidgety, bright and optimistic; but with an anxiety state one more often encounters lethargy and depression.

Rarer toxic manifestations, such as pruritus, intermittent attacks of diarrhœa, glycosuria, frequent extrasystoles despite a rapid pulse rate, and muscular weakness, particularly in the ocular and thigh muscles, should be carefully sought.

Laboratory evidence, such as repeated estimations of the basal metabolic rate with the patient at rest, the level of protein-bound iodine in the blood, and the collection of the radioactive iodine by the thyreoid, is also of value, but is not readily available.

If the general clinical impression favours the diagnosis of an anxiety state rather than thyreotoxicosis, a period of observation combined with mild sedation and reassurance may clarify the picture. No harm will be done by waiting, even if further observation shows that the patient has mild hyperthyreoidism. On the other hand, surgical treatment may intensify an anxiety state or even convert it into a true psychosis.

If there is a strong suspicion of thyreotoxicosis, but not enough evidence to make a definite diagnosis, a period of observation combined with a therapeutic trial of one of the "thio" drugs is advisable. Clinical improvement as indicated by increase in weight, improvement in the patient's general condition and a fall in the pulse rate will clinch the diagnosis. In such cases, if the goitre is not large or nodular, treatment with the thio drugs can be continued.

One of the commonest conditions mistaken for an anxiety state, and also for other diseases (for example, myocarditis), is unsuspected and undiagnosed anæmia. Two patients have been observed, both of whom had received shock treatment for nervous symptoms without benefit but made a good recovery when severe anæmia was recognized and treated. In each instance the anæmia was due to a "leaking" duodenal ulcer.

Anæmia, even when the hæmoglobin value is as low as 50%, may be overlooked on ordinary inspection. The colour of the face may be misleading, especially in a nervous patient whose colour may be heightened by nervous tension. The mucous membranes and the palms of the hands are much better guides as to the probable presence of anæmia. The Tallqvist hæmoglobinometer is generally regarded as being unreliable, but with a little practice and experience in its use, a fairly accurate estimation of the hæmoglobin value can be made. Even without much experi-

ence it will enable severe or moderately severe anæmia to be recognized, and it has the very great advantages of celerity and simplicity.

Much has been said about the changing face of disease. Chlorosis, once a common condition, is now rarely seen. Scarlet fever used to carry a high immediate mortality rate, estimated by Osler in 1907 at about 8% to 10%; but now death in the acute stage of the disease is rare.

Gout, frequently considered to be a rare disease, is, I believe, still fairly common, but is often overlooked or diagnosed as rheumatism. Its recognition is usually made easy if it is remembered that in over 90% of cases the first manifestation is the sudden development of pain, redness, swelling, and a shiny appearance around a great toe joint.

Chronic emphysema, although still common and usually correctly diagnosed thirty years ago, is now frequently overlooked or diagnosed as "chronic myocarditis". This may possibly be due to the more frequent use of X-ray examination of the chest, which has resulted in less attention being given to the ordinary clinical examination. The X-ray film may of course suggest a diagnosis of emphysema, but the pulmonary fibrosis seen in the film is often not demonstrable at autopsy. Recognition of emphysema is important, not only because treatment may materially increase the patient's comfort, but also because the prognosis is better than in chronic heart disease with a comparable degree of dyspnœa. An incorrect diagnosis of heart disease, particularly in the case of a nervous patient, may produce an anxiety state which is often much relieved when the patient is told that his shortness of breath is due to a loss of elasticity in the lungs and not to primary heart disease.

The recognition of emphysema is usually not difficult. The outstanding feature is loss of elasticity of the lung. The residual air after full expiration is much increased and the lung is unable to retract properly from the position of inspiration. It may be associated with chronic bronchitis, asthma and pulmonary fibrosis. Dyspnœa is the cardinal symptom and is often a pronounced feature in the absence of any cardiac enlargement. Frequently, unlike most cases of cardiac dyspnœa, the shortness of breath has developed gradually over a period of many years. There may be obvious expiratory difficulty and an audible wheezing, but no increase, as a rule, in the respiratory rate. Cyanosis may be present to a degree not usually seen in acquired heart disease unless the patient is confined to bed. The most reliable sign is diminished expansion of the thorax, which almost seems as if it were paralysed at the end of inspiration. The chest may be barrel-shaped, and the percussion note hyperresonant with an extension of the borders of pulmonary resonance. Auscultation may reveal prolongation of expiration with associated signs of bronchitis, bronchospasm and at times pneumonitis.

Drugs designed to reduce bronchospasm and thus improve pulmonary ventilation are often helpful. Ephedrine and aminophyllin used intermittently, either separately or in combination, often produce considerable symptomatic improvement. A mixture containing potassium iodide (10 grains), tincture of stramonium (10 minims) and ephedrine (one-third to one-half grain) often gives some symptomatic relief and may be taken intermittently for an indefinite period. Hard manual labour increases wear and tear on the lungs and should be avoided. If a chronic cough is present the cause should, if possible, be determined and appropriately treated—for example, over-indulgence in cigarettes, and chronic sinusitis. Acute and subacute respiratory infections should be vigorously treated with the appropriate antibiotics. The mechanical insufficiency of the diaphragm may be reduced and pulmonary ventilation improved by the wearing of an elastic abdominal belt and the regular performance of respiratory exercises.

If the above-mentioned measures are instituted and the nature of the condition is explained to the patient, a considerable degree of symptomatic improvement can often be obtained, and at the same time the psychological trauma associated with a diagnosis of heart disease can be avoided.

The general practitioner has a great opportunity and also a heavy responsibility in the early recognition and prompt and effective treatment, including subsequent regular supervision, of patients with certain chronic diseases—for example, myxœdema, peptic ulcer, diabetes and rheumatoid arthritis.

Myxœdema is not a common disease, but it frequently passes unrecognized for many years, probably not because its clinical manifestations are unknown but because it is not considered when a diagnosis is being made. The facial appearance, combined with a slightly husky voice and a slow, deliberate speech, will usually make the diagnosis. The face is puffy, the skin has a pallid, often slightly yellow, tinge and the cheeks are frequently pink or a trifle cyanotic —the so-called "strawberries and cream" appearance. The hair may be dry and brittle and tends to fall out, particularly on the back and sides of the head and on the outer parts of the eyebrows. The skin is usually dry and cold, the nails are thick and brittle and the hands and feet may have a broad appearance. Anæmia, either microcytic or macrocytic in type, may be present. The patient may also complain of shortness of breath or anginal pain on exertion. Occasionally mental symptoms may occur early and dominate the clinical picture. Two patients have been observed who for several years were regarded as suffering from a primary psychosis and committed to a mental hospital.

The commonest errors in diagnosis are to mistake the condition for chronic nephritis, heart disease or anæmia. In one instance the husky voice suggested the advisability of a laryngeal examination by an ear, nose and throat specialist. A small nodule on a vocal cord was discovered and removed. The voice did not improve; but it did so shortly after thyreoid extract was administered.

The basal metabolic rate is, of course, lowered, and the response to thyreoid medication is prompt and gratifying.

If *angina pectoris* or congestive heart failure is present, thyreoid administration should be commenced in small doses (one-quarter of a grain daily) and cautiously increased by one-quarter of a grain every three or four weeks until the optimum maintenance dose is discovered.

It is not an uncommon experience to see a patient suffering from the later complications of diabetes or a peptic ulcer, whose diagnosis had been made years before and yet whose treatment has been inadequate and spasmodic. While it is true that in many of these cases the fault lies with the patient, one cannot escape the conclusion that if, at the beginning, the true nature of the disease, its natural history and possible future complications had been fully explained, and if the necessity for regular medical supervision had been emphasized, much suffering and ill-health might have been avoided. The medical management of the majority of patients suffering from either of these complaints is not difficult or time-consuming, and even at the risk of appearing to make unnecessary work every opportunity should be taken to impress on the patient the necessity for regular medical supervision.

Rheumatoid arthritis, even in its early stages, is not as a rule difficult of recognition. It cannot be too strongly emphasized that it is not merely an affection of the joints but a general disorder, with joint manifestations, for which as yet we have no specific remedy. In its early stages there is often considerable constitutional disturbance, with loss of weight, slight and at times severe fever, anæmia, and occasionally enlargement of lymph glands and spleen. If during this period the patient is put to bed, relieved of the stress and strain of everyday work and given treatment directed towards improving the general health (for example, correction of anæmia, improvement of the general state of nutrition and appropriate local treatment to the joints), the disease may be arrested before crippling deformity develops.

Conclusion.

In conclusion, I should like to say that I am not unaware of the difficulties encountered in general practice. The general practitioner carries very heavy responsibilities, probably heavier than his colleagues in any other branch of the healing art; but as compensation for that he has greater opportunities of doing good, of detecting and treating disease in its early stages, and of engaging in that most interesting of all studies, "the study of man within his environment, to give life and to give it more abundantly".

CYSTS AND DIVERTICULA IN THE REGION OF THE CAECUM, WITH A REPORT OF TWO CASES.

By K. VINER SMITH,
Department of Pathology, University of Sydney.

CYSTS and solitary diverticula occurring in the wall of the caecum and in the nearby intestine and mesentery are conveniently considered together because of their many resemblances. They may be broadly subdivided into two groups: (i) Those which arise from errors of development and are present at birth; (ii) those which are acquired later.

Cysts Present at Birth.

Meckel's Diverticulum.

First in the group of cysts present at birth are Meckel's diverticulum and cysts arising from isolated remains of the omphalo-mesenteric duct. These may be found near the lower part of the ileum 50 to 100 centimetres above the caecum. Their walls contain the same coats as the bowel wall, including the mucosa.

Enterogenous Cyst.

The next type of congenital cyst is enterogenous cyst (or enterocystoma), which may occur at any level of the intestine and especially about the caecum. Hughes-Jones (1934) reviewed 55 cases from the literature and found that in 31 the condition affected the last four inches of the ileum, the caecum, or the first two inches of the colon. The cysts may be in the bowel wall projecting into the lumen, or outwards, or in both directions; or they may lie in the mesentery, usually near the intestine. As with Meckel's diverticulum, all coats of the intestine are usually represented in the cyst wall. However, the epithelium is often altered in nature (Evans, 1929), and if the cysts become large they may have little or no plain muscle in their wall (Dockerty, Kennedy and Waugh, 1940). They often contain mucoid fluid.

It seems reasonable to include congenital solitary diverticula of the caecum under the heading of enterogenous cysts, as their walls have the same structure and they probably have the same origin. Evans (1929), in his comprehensive review of developmental cysts and diverticula of the bowel, supports this. It is difficult, however, to determine what proportion of solitary diverticula of the caecum are congenital. Bennett-Jones (1937) reviewed 20 cases in which solitary diverticula were present and considered that the majority were probably acquired. He based this opinion on the presence of tuberculous infection in two cases and on the great variation in the sites of origin from the caecum. The ages of the patients when the lesion was found varied from nineteen years to sixty-three years, one being a child, aged three years, in whom the diverticulum was discovered by chance. True cysts are usually found in infancy or early childhood. This difference is possibly due to mechanical factors. A closed cyst is more likely than a diverticulum to give rise to symptoms at an early age by causing intestinal obstruction or by becoming infected and distended.

CASE I.—A man, aged twenty-nine years, was admitted to Sydney Hospital, having been ill for three days. He was thought to be suffering from acute appendicitis. Operation was performed and a mass found at the ileo-caecal junction. A portion of bowel was removed consisting of ascending colon, caecum, appendix, the mass, and eight inches of the ileum.

Examination of the excised tissue (Figure I) revealed a diverticulum 2·5 centimetres in diameter on the medial side of the caecum just above the ileo-caecal junction. The diverticulum, which was almost filled with a mass of inspissated fæces was pressing on the terminal part of the ileum to some degree. The opening into the caecum was about 1·0 centimetre long and 0·5 centimetre wide.

Microscopic examination of sections shows that the wall of the cyst contains a considerable amount of plain muscle together with fibrous tissue. There is no lining epithelium. Many lymphocytes, histiocytes and a few polymorphonuclear leucocytes enmeshed in fibrin lie on the inner surface of the wall. Similar cells are scattered throughout the wall.

This is an example of a solitary diverticulum of the caecum. The mucosa has been lost, presumably by long-standing low-grade inflammation. The faecal concretion is common in these cases, Bennett-Jones (1937) reporting it in 15 out of 20 cases he reviewed.

Three main theories have been advanced to explain the origin of enterogenous cysts: (i) They may represent a persistence of an abnormally placed omphalo-mesenteric duct: that is, they may arise in the same way as Meckel's diverticulum. (ii) Their origin may be explained by the work of Keibel (1905) and of Lewis and Thyng (1907), who independently recognized in the embryos of some animals and of man a number of small diverticula in the normally developing intestine. Pathological persistence of these diverticula is suggested as the origin of enterogenous cysts and also of reduplication of portions of bowel, which has been reported. (iii) A third theory attributes the cysts to epithelium which is sometimes separated off from the intestinal epithelium at the stage of development in which the lumen is occluded and before the circular muscle layer is formed.

FIGURE I.

The posterior aspect of the specimen removed at operation in Case I. The diverticulum (A) with its content of inspissated fæces lies on the inner side of the caecum (B). The ileum and the vermiform appendix may be seen.

Cysts Arising from Lymphatic Vessels or Lymphoid Tissue.

A third type of congenital cysts comprises cysts which arise from lymphatic vessels or lymphoid tissue. Some of these cysts arise as part of a lymphangioma, a new-growth of endothelium-lined lymphatic vessels and their supporting tissue. One or two large cysts may overshadow the remainder of the tumour; but examination of sections will reveal smaller spaces in the cyst wall lined by endothelium and perhaps some lymphoid follicles or collections of round cells.

In other cases it is thought that dilatation and varicosity of lymphatic vessels may arise in fœtal life or after birth by obstruction, sometimes following inflammation. In this case the lumen may contain chyle, and the histological

picture will be that of one or a few dilated lymphatic vessels lying in acellular connective tissue which does not contain any lymphoid follicles. This condition is known as lymphangiectasis (Hill, 1930; Ewing, 1940). It seems doubtful whether the separation of these two conditions is valid.

FIGURE II.

The anterior aspect of the tissue removed at operation in Case II. The cyst (A) has been packed out to its original shape with cotton wool which shows through the gap where tissue was taken for section. The projection (B) from this cyst passes upwards and to the left in front of the ileum. The second cyst (C) lies above the larger cyst and on the medial aspect of the ascending colon. Portion of the ileum (D) is seen on the right of the photograph.

Case II is an example of true lymphagioma.

CASE II.—A woman, aged twenty-four years, had had abdominal colic for twenty-four hours and had vomited twice. Her tongue was clean and vague tenderness was present over McBurney's point. Her temperature was 99·4° F. and her pulse rate 130 per minute. Nine hours later the patient's temperature was 99·4° F.; her tongue was clean and her breath appeared normal. She had no abdominal rigidity, but more tenderness than before was present. Tenderness was also elicited on rectal examination. Operation was performed. A structure which appeared to be a large cyst was seen at the ileo-caecal junction. Ileo-transverse colostomy was performed and the caecum and ascending colon were excised.

The tissue removed (Figure II) consisted of portion of the colon with the caecum, vermiform appendix and portion of the ileum. On the medial side of the caecum and lying partly in front of the ileum there was a thin-walled cyst. This cyst was approximately spherical and 7·5 centimetres in diameter, with a projection 2·5 centimetres long and 2·0 centimetres in diameter passing upwards and to the left in front of the ileum. At the apex of this projection some dense tissue was present which was found on section to be dark in colour. The cyst contained 200 millilitres of brown turbid fluid which had been contaminated with formalin before examination. Much fibrinous material was adherent to the inner wall of the cyst. Above this cyst there was another, 3·0 centimetres in diameter, attached to the medial side of the ascending colon. It was similar to the first cyst and communicated with it by an opening which admitted a probe easily. Neither cyst had an opening into the bowel. The vermiform appendix was bound to the posterior aspect of the caecum and partly kinked. The centrifuged deposit of the fluid contents of the cysts was found to consist almost entirely of neutrophile polymorphonuclear leucocytes.

Microscopic examination shows that the wall of the large cyst consists of fibrous tissue, adipose tissue and a little plain muscle. There is no epithelium lining the cyst; but many polymorphonuclear leucocytes enmeshed in fibrin lie on the inner surface of the cyst wall. The cyst wall at the apex of the projection differs from that in other parts of the cyst. Lymphoid tissue is present both in follicles and arranged diffusely. A number of dilated lymphatic vessels are seen also.

This case is considered to be one of cystic lymphangioma, although Hill (1930) states that in the absence of a lining membrane the remainder of the cyst wall provides scarcely sufficient evidence on which to base a diagnosis. In this instance the presence of a considerable amount of lymphoid tissue and of dilated lymphatic vessels in one part of the wall seems sufficient evidence on which to make the diagnosis. It is interesting to note here that the projection from the cyst, which passes upwards and to the left in front of the ileum, resembles a similar process in a cyst of the ileo-caecal region described by Ayer (1906). This case has been quoted by several authors as an example of enterogenous cyst; but no histological examination of the specimen was made. Hughes-Jones (1934) has published a sketch of a thick-walled cyst of the transverse colon with a similar projection (from Saint Thomas's Hospital Museum). He has labelled this an enterogenous cyst, but gives no details of its structure.

Dermoid Cysts and Teratomata.

Dermoid cysts and teratomata are recognized by the presence of tissues from two or three embryonal layers.

Acquired Lesions.

Cysts Arising from Infections.

Cysts may arise from liquefaction of tuberculous lymph nodes, or from hydatid infestation.

Cysts Arising from an Injury Causing a Hæmatoma.

Cysts which arise from an injury which causes a hæmatoma are said to contain blood or its products. The cyst walls are lined by fibrous tissue and contain blood pigment (Dockerty, Kennedy and Waugh, 1940).

Gaseous Cysts.

Gaseous cysts (Jackson, 1940) are included in this group. They can be readily recognized. They occur in the subserous layer, and as they require no treatment, they are unimportant.

Solitary Diverticula.

Some solitary diverticula are possibly acquired. The wall may consist of all layers of the bowel wall, or of mucosa alone which has herniated through the muscle layers.

Secondary Deposits from Cystic Tumours.

Secondary deposits from cystic tumours may occur as from the ovary.

Clinical Manifestations.

When the lesion is a closed cyst it may cause intestinal obstruction by pressure on the bowel wall, by acting as a ball-valve at the ileo-caecal junction, or by initiating intussusception or volvulus.

In other cases the cyst, or a solitary diverticulum, may become inflamed and so give rise to symptoms. This occurred in the two cases reported above.

Summary.

1. A classification and brief description are given of cysts and solitary diverticula which may be found in bowel wall or mesentery in the region of the caecum.

2. Two cases are reported which illustrate some of these conditions.

Acknowledgements.

I thank Professor W. K. Inglis for his helpful criticism of this report, and the Department of Medical Artistry, University of Sydney, for the two photographs.

References.

Ayer, J. C. (1906), "Enteric and Mesenteric Cysts, with Report of an Unusual Case", *The American Journal of the Medical Sciences*, Volume CXXXI, page 89.

Bennett-Jones, M. J. (1937), "Primary Solitary Diverticulitis of the Caecum", *The British Journal of Surgery*, Volume XXV, page 66.

Dockerty, M. B., Kennedy, R. L. J., and Waugh, J. M. (1939), "Enterogenous Cysts; With Report of a Case Involving the Terminal Ileum", *Proceedings of the Staff Meetings of the Mayo Clinic*, Volume XIV, page 664.

Evans, A. (1929), "Developmental Enterogenous Cysts and Diverticula", *The British Journal of Surgery*, Volume XVII, page 34.

Ewing, J. (1940), "Neoplastic Diseases", Fourth Edition, page 261.

Hill, L. G. (1930), "Lymphangioma of the Abdomen", *The Lancet*, Volume II, page 897.

Hughes-Jones, W. E. A. (1934), "Enterogenous Cysts", *The British Journal of Surgery*, Volume XXII, page 134.

Jackson, J. A. (1940), "Gas Cysts of the Intestine", *Surgery, Gynecology and Obstetrics*, Volume LXXI, page 675.

Keibel, F. (1905), *"Zur Embryologie des Menschen, der Affen, und der Halbaffen", Verhandlungen anatomischen Gesellschaft*, Volume XXVII, page 39; quoted by Lewis, F. T. (1909), "Keibel's Note on Intestinal Diverticula", *The Anatomical Record*, Volume III, page 267.

Lewis, F. T., and Thyng, F. W. (1908), "The Regular Occurrence of Intestinal Diverticula in Embryos of the Pig, Rabbit and Man", *The American Journal of Anatomy*, Volume VII, page 505.

Reviews.

IRRADIATION IN MALIGNANT DISEASE.

"THE Results of Radium and X-ray Therapy in Malignant Disease", by Ralston Paterson *et alii*, is the third statistical report from the Christie Hospital and Radium Institute, Manchester, England,[1] the second report having been published in 1946, the first report in 1939. Like its predecessor the present volume is divided into three parts, (i) a general survey and discussion of the material for the report, (ii) a scientific report with comparative analyses of the various techniques employed, (iii) the ten-year results of the 1934/38 sample.

The present therapeutic organization dates from 1932 when Lord Derby opened the new hospital and Dr. Ralston Paterson was appointed as director. From relatively small beginnings the organization has come to serve a population of approximately four and a half million with small "feeder" clinics established in various parts of Lancashire, Cheshire and Westmoreland. The growing demand for radiotherapy is illustrated by the increase in the number of patients, namely, 2514 in 1938 5097 in 1944. The prevailing standard of work and equipment is of the highest quality. In addition to small radium applicators and the usual X-ray voltages, the hospital is equipped with a ten-gramme radium beam unit and a betatron to operate at 20 mejavolts.

The statistical tables are admirably presented: simple five-year and ten-year survival rates are set out with all relevant figures shown. An interesting method of correcting these rates, to allow for deaths from intercurrent disease, has been worked out with the aid of Dr Percy Stocks of the Registrar-General's Office. We are not impressed with Dr. Paterson's adverse criticism of the actuarial or life-table method of calculating (and presenting) survival rates. In our opinion the life-table method is an admirable way of portraying the complete after-history of a particular cancer cohort. After all, life is lived from day to day and not in five-year chunks. The five-year survival rate defines success or failure at an arbitrary point of time; the life-table gives a graduated picture of the results of treatment (or non-treatment) from year to year without the need to draw a hard and fast line between so-called "cure" and prolonged palliation.

This book is an excellent and authoritative piece of work: it deals with the destiny of 13,519 patients classified according to age, sex, topical diagnosis, type of treatment, and stage of disease on admission to the clinic. It is a welcome addition to the annals of statistical medicine.

[1] "The Results of Radium and X-Ray Therapy in Malignant Disease: Being the Third Statistical Report from the Radium Institute, the Christie Hospital and Holt Radium Institute, Manchester: Years 1940 to 1944 inclusive assessed at 5 years and 1934 to 1938 assessed at 10 years", compiled by Ralston Paterson, Margaret Tod and Marion Russell; 1950. Edinburgh: E. and S. Livingstone, Limited. 9½" × 6", pp. 168. Price: 10s. 6d.

FRACTURES.

ANY new medical book arouses interest; and John Charnley, in his "Closed Treatment of Common Fractures", strikes a welcome note at a time when the surgery of fractures may receive undue attention at the expense of the "setting" of fractures.[1] Although there are grounds for debate and dispute, the general approach along the line of mechanical analogy and mechanical application is good; and most will agree with the author in his remark that in the past insufficient detail has been given in the text-book descriptions of the commoner manipulations.

There is a stimulating attitude in regard to the problems of plaster technique; and it is worth noting that Charnley advocates padded plaster, with the proviso that the method must be well learned, and carried out with a meticulous technique. To use yet another mechanical analogy, the wheel has turned full circle.

The chapter on the walking caliper is informative historically, and as practical as one would expect from a surgeon who has made the subject particularly his own; and whose "Army adjustable" pattern achieved wide use in Europe and the Middle East.

Some problems have been oversimplified, but the principles and practices are sound.

This book has been written primarily for the casualty surgeon, and should prove valuable; but also, it can be perused with profit by those whose experience has enabled them to achieve success by traditional or original methods.

The production is good; and a foreword by Sir Henry Platt provides a suitable launching for a new work.

[1] "The Closed Treatment of Common Fractures", by John Charnley, B.Sc., M.B., F.R.C.S.; 1950. Edinburgh: E. and S. Livingstone, Limited. 9¾" × 7", pp. 202, with 133 illustrations. Price: 35s.

McCLUNG'S HANDBOOK OF MICROSCOPICAL TECHNIQUE.

IT is thirteen years since the second edition of the "Handbook of Microscopical Technique",[2] edited by C. E. McClung was published, and the third edition by his daughter has been largely rewritten and considerably expanded to include recent advances in the subject.

The opening chapters on basic methods are reasonably complete and include a good account of the use of some of the new dehydrating agents concerning which many histopathologists appear to be excessively conservative. A chapter on the use of automatic tissue-processing apparatus would be of value, as it is now coming into general use in large laboratories. An account of the various types of microtomes would also be an advantageous addition. The short and inadequate paragraphs on the

[2] "McClung's Handbook of Microscopical Technique: For Workers in Animal and Plant Tissues", by thirty-five authors, edited by Ruth McClung Jones; Third Edition; 1950. New York: Paul B. Hoeber, Incorporated. 9¼" × 6", pp. 820, with 157 illustrations. Price: $12.00.

cutting of frozen sections might well be expanded in keeping with the increasing recognition of the value of this technique.

The chapter devoted to fixatives fails to draw attention to the necessity for buffering with phosphates formalin solutions used for this purpose. The excellent picric acid and alcohol fixative of Vandegrift is not mentioned, nor the ether-alcohol fixative for use with the smear technique. from the chapter on stains a number of newly-introduced dyes are omitted, but all the established formulæ appear to be included in this section, or in the various chapters devoted to special procedures.

Of the new chapters added those on electron microscopy and the use of phase contrast are of the most general interest, but only eight pages are devoted to the latter as compared to eighty-six on the microscopic investigation of biological materials with polarized light. There is an interesting chapter on the radio-autographic technique.

This book is a comprehensive survey of microscopic technique which contains a large amount of useful information. At a few points it drifts from its subject, as in eight pages devoted to methods for estimating the hæmoglobin in erythrocytes. Like all compilations involving a panel of authors, it shows some uneveness of quality and emphasis. As a reference work it will prove of more value to the academic histologist than to the clinical histopathologist, and its contents indicate that there are respects in which the latter appears to have outstripped the former from a technical viewpoint.

A TEXT-BOOK ON OBSTETRICS.

"WILLIAMS OBSTETRICS" has always been a sound teaching manual, and, as revised by Nicholson J. Eastman, Professor of Obstetrics, Johns Hopkins University, it has improved in excellence.[1] Students and medical practitioners will find therein a ready reference and each subject is dealt with in a reasoned manner. When the editor differs in a line of treatment, the other side of the argument is fairly set out. More than half the book has been completely rewritten and it is now quite in tune with modern teaching.

The first chapter is unusual in a text-book of obstetrics in that it sets out vital statistics of public health, maternal and neonatal mortality, and orientates the reader to a *raison d'être* for methods of treatment to be followed later to achieve the best results from this broader perspective.

Many of the sections have been rewritten, and of particular interest among these are those dealing with toxæmia, hæmolytic disease of the newborn, and the endocrines. Historical notes are brief, but sufficient to interest the student in the lead-up to each subject—and the bibliographies are adequate without being too voluminous.

The extensive section on hæmolytic disease of the newborn was written by Dr. Milton S. Sacks, Director of the Baltimore Rh Typing Laboratory, and is based on an analysis of more than 75,000 *gravidæ* in respect to Rh type and subsequent course. It gives a full and accurate review of this important subject. The treatment of puerperal infection is up to date with a discussion of the sulphonamides and the newer antibiotics. Older practitioners wishing to modernize their methods might peruse this and other sections with much advantage.

No practising obstetrician will agree with every item in any text-book—and it would not be impossible to find faults in this volume. When dealing with Cæsarean section in the presence of infection, the operator is advised to amputate the body of the uterus after delivery of the child. This is at variance with teaching in this country, and would seem much to too drastic a step—more especially in this penicillin era.

The illustrations are numerous and aid materially in interpretation of the text. The photomicrographs are not of outstanding quality, but are reasonably clear. The book is well printed and well set up on nice quality paper, and is a pleasure to read. When a large and comprehensive tome, embracing all aspects of modern obstetric teaching, is desired, this book can be thoroughly recommended.

[1] "Williams Obstetrics", by Nicholson J. Eastman; Tenth Edition; 1950. New York: Appleton-Century-Crofts, Incorporated. 9½" × 6½", pp. 1190, with 651 illustrations, some of them coloured.

Books Received.

[The mention of a book in this column does not imply that no review will appear in a subsequent issue.]

"Methods In Medical Research", Editor-in-Chief Ralph W. Gerard; Volume III; 1950. Chicago: The Year Book Publishers, Incorporated. 8½" × 5½", pp. 340, with a few illustrations. Price: $7.00.

Contains sections on genetics of microorganisms, the assay of neurohumors, selected psychomotor measurement methods and methods for study of peptide structure.

"The 1950 Year Book of Obstetrics and Gynecology (August, 1949-July, 1950)", edited by J. P. Greenhill, B.S., M.D., F.A.C.S.; 1950. Chicago: The Year Book Publishers, Incorporated. 7½" × 5", pp. 580, with many illustrations. Price: $5.00.

One of the Practical Medicine Series of Year Books.

"The Biology of Human Starvation", by A. Keys, J. Brozek, A. Henschel, O. Mickelsen and H. L. Taylor, with forewords by J. C. Drummond, R. M. Wilder, C. G. King and R. R. Williams; 1950. Minneapolis: The University of Minnesota Press. Melbourne: Geoffrey Cumberlege, Oxford University Press. 10" × 7". In two volumes. Volume I, pp. 790; Volume II, pp. 632. Both volumes contain illustrations. Price: £12 12s.

A comprehensive study based on the controlled investigation known as the Minnesota Experiment.

"Microbiology: With Applications To Nursing", by C. J. Witton, M.A.; 1950. New York, Toronto and London: McGraw-Hill Book Company, Incorporated. 9" × 6", pp. 710, with many illustrations.

A text-book for student nurses.

"Methods in Medicine: The Manual of the Medical Service of George Dock, M.D., Sc.D.", by George R. Herrmann, M.D., Ph.D.; Second Edition; 1950. St. Louis: The C. V. Mosby Company. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. 9" × 6", pp. 496. Price: 78s. 9d.

"A comprehensive outline for clinical investigation, management, and treatment of patients with various medical disorders." The previous edition was issued in 1924.

"The Medical Clinics of North America"; 1950. Philadelphia and London: W. B. Saunders Company. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. Philadelphia number. 9" × 6", pp. 340, with five illustrations. Price: £7 5s (cloth binding), £6 (paper binding) *per annum*.

Contains a symposium on the infectious diseases and a symposium on current concepts of pathogenesis and treatment.

"The Surgical Clinics of North America"; 1950. Philadelphia and London: W. B. Saunders Company. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. St. Louis number. 9" × 6", pp. 308, with many illustrations. Price: £7 5s. (cloth binding), £6 (paper binding) *per annum*.

Contains a symposium on clinical surgery.

"Practical Section Cutting and Staining", by E. C. Clayden, F.I.M.L.T.; Second Edition; 1951. London: J. and A. Churchill, Limited. 8" × 5", pp. 148, with 23 illustrations. Price: 10s.

A book for inexperienced technicians, revised with addition of details of new methods.

"Recent Advances In Chemotherapy", by G. M. Findlay, C.B.E., Sc.D., M.D., F.R.C.P.; Third Edition; Volume II; 1951. London: J. and A. Churchill, Limited. 8" × 5½", pp. 612. Price: 36s.

The second of four volumes. It is devoted wholly to malaria.

"Atlas der Haut- und Geschlechtskrankheiten", by Dr. Walter Frieboes and Dr. Walther Schönfeld; 1949. Stuttgart: Georg Thieme Verlag. 11" × 8", p. 276, with 428 coloured illustrations. Price: DM66.

An atlas of skin and venereal diseases.

The Medical Journal of Australia

SATURDAY, FEBRUARY 17, 1951.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given without abbreviation: surname of author, initials of author, year, full title of article, name of journal without abbreviation, volume, number of first page of the article. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

"GLOBAL STRATEGY" IN PREVENTIVE MEDICINE.

THROUGHOUT history man has sought to prevent disease, at first in blind helplessness, later, feeling his way to the truth but still in uncertainty and ignorance. Not until our own century has any real headway been made, and even today the battle is still a drawn one. Records show that certain diseases have existed for nearly 3000 years; new diseases have been found, but no disease of man has disappeared. According to Karl F. Meyer:[1]

> More than one-half of the deaths and probably an even higher proportion of the sicknesses of mankind today are caused by the infectious diseases. The enormous advances since the discovery of the disease-producing microbes have merely altered the conditions quantitatively with respect to location and time. But the suppression of certain epidemic diseases has in no way altered the general situation. The human race is condemned to a constant struggle which can never be permitted to lapse without risking the loss of laboriously acquired successes. Moreover, it must be accepted that the control of epidemics by international quarantine measures is often ineffective and now too often entirely out of step with the rapidly increasing speed of transportation. It becomes clear that the pooled knowledge and common interest demand international assistance in order to extinguish epidemics at their source.

It is thus clear why, when Dr. Meyer, who is an eminent worker in the field of preventive medicine, was invited to deliver the James D. Bruce Memorial Lecture in Preventive Medicine at the thirty-first annual session of the American College of Physicians, he chose as his topic "Global Strategy in Preventive Medicine". He is convinced that the struggle against disease must be worldwide. Strategy, in the literal sense "the art of the general", means the tactical application of superior forces to obtain advantages and thus to conquer an opposing force. The word has travelled a long way from the tribal wars of the Greeks to the days of world alliances. Meyer promotes it to describe a war in which all mankind may unite to save life, not to destroy it.

In preventive medicine, theory is still far ahead of practice. Meyer writes:

> Vast populations are depressed economically by malaria and other infectious diseases. . . . Modern preventive medicine has accomplished miracles in controlling herd infection. Nevertheless calamity is still possible. Witness the epidemic of malaria in Ceylon after an economic depression. An enormous mortality rate was recorded in a disease the cause of which is known and for which treatment is available.

To Meyer, control of pestilence is not the whole story; he believes that the root of much social and political trouble throughout the world is not epidemic disease, but poor health and the irritability, discontent and frustration that go with it. The chance for peace may be vastly improved if this is recognized. Preventive medicine is still at an elementary stage. It reduces the incidence of infectious disease, but it must go further and aim at the prevention of non-infectious diseases and the promotion of health. There are at least a billion people for whom this ultimate goal is not yet attainable; in China, for example, and certain regions of Asia, Africa and the Americas, standards of living for many people are below the level of tolerable existence.

Meyer discusses the phenomena of epidemics, referring briefly to their history which dates back approximately 5500 years. "The Big Four", as he calls plague, cholera, influenza and smallpox, are still with us. One interesting feature of the history of epidemics is the way in which infectious diseases have been smuggled into regions where they were previously unknown. Returning Crusaders brought leprosy to Europe; in our own time a ship took measles to Samoa. "The continuous and rapid exchange of disease is no respecter of races. Syphilis, leprosy and smallpox have been passed from the coloured races to the white and *vice versa*." The modern epidemiologist has learned to expect these wanderings of contagious disease. Quarantine regulations are undoubtedly necessary and important, but breaks in the chain of defence will occur from time to time. The parasites that cause infectious disease are great travellers; Meyer observes that: "The Negro slave imported from the African continent to the Americas was, in the words of Sir Harry Johnston, 'a hive of dangerous germs'. With certainty the slaves introduced leprosy, filariasis, uncinariasis, yaws, alastrim and yellow fever." Leprosy has been carried from Asia in a fur coat; in the last century smallpox or scarlet fever was sometimes carried to the West End of London by an expensive frock made in the sweat shops of the East End. A spread of infectious disease from east to west on the European continent is not surprising when it is realized that the larger part of the population of the world lives in Asia under conditions of insanitation and overcrowding. The speed and volume of modern traffic by sea and air make it difficult to maintain quarantine regulations. It is no longer sufficient to protect certain areas of the world; we must be bolder and attack disease at its source.

The agents that cause infectious disease are parasites, and parasites are notoriously good at looking after themselves. In the past, microbial diseases and epidemics have been very persistent. As Meyer points out, no disease of man has disappeared during the period of recorded history, though the same interval has seen the dying out of free-living animals and plants. Can we hope, then, to eradicate a few infections from the inhabited parts of the world? Meyer believes that this is possible; what has been accomplished temporarily in certain regions may be realized elsewhere. But the strategy must be worldwide.

[1] *Annals of Internal Medicine*, August, 1950.

National and international organizations must cooperate. In the long run we can ensure our own safety only by making the whole world safe. The nineteenth century saw the birth of internationalism in medicine. The first international action in the control of infectious disease arose from the Egyptian Quarantine Board established in 1831 to protect Egypt from the risk of plague-infected ships. The introduction of cholera into Europe in 1847 prompted the Government of France to convene an International Sanitary Conference in 1851. In 1902 the First International Sanitary Conference of American Republics in Washington decided to establish quarantine measures against yellow fever. From this conference arose the Pan-American Sanitary Bureau, a body which has proved itself exceedingly effective. After the first World War, the Health Section of the League of Nations, generously supported by the Rockefeller Foundation, performed invaluable work in combating epidemics. The World Health Organization, formed in 1948, has pointed the way towards a new kind of medical statesmanship. Its power as a coordinating body was shown by the action taken on the outbreak of cholera in Egypt in 1947. This epidemic was checked by the prompt action of the Egyptian Government, the mobilization of the resources of the World Health Organization, of the various international health authorities and of the drug manufacturers. Egyptian authorities freely acknowledged the generous help afforded them—blood plasma was donated by the American Red Cross, sulphaguanidine and vaccine were provided at a low cost and 3000 syringes were sent by the City of New York. The action of the World Health Organization helped Egypt, and thus safeguarded the rest of the world, preventing the spread not only of cholera, but of unjustified panic. Meyer reminds us that in no area of human activity is it so easy to obtain international cooperation as in war against disease. The strategy that plans to check epidemics at their source, and to eradicate disease from undernourished peoples represents a great advance, for here common sense joins hands with philanthropy. Philanthropy—the love of one's fellows—thus becomes not an impossible ideal but an inexorable necessity. It has taken the human race a long time to learn this, though throughout history there have been visionaries and idealists who have known it by intuition. Such a visionary in our own time, for instance, is Dr. Albert Schweitzer,[1] who determined to attack disease at its source from motives of justice rather than of expediency. Using the money he had earned by his genius as a musician and writer, he qualified as a doctor of medicine and founded a hospital for African natives in the French Congo. "It was and still is my conviction", he wrote, "that the humanitarian work to be done in the world should, for its accomplishment, call on us as men, not as members of any particular nation or religious body." Later, after some years of work in Equatorial Africa, he wrote:

> We civilized people have been spoilt. If any of us is ill the doctor comes at once. Is an operation necessary, the door of some hospital or other opens to us immediately. But let anyone reflect on the fact that here in Africa millions and millions live without help or hope of it. Every day thousands and thousands endure the most terrible sufferings, though medical science could avert them. We and our civilization are burdened by a great debt. . . . Sooner or later the idea that I here put forward will conquer the world, for with inexorable necessity it carries with it the intellect as well as the heart .

[1] Seaver, George, "Life of Albert Schweitzer".

The idea of which Schweitzer wrote is not far removed from Meyer's thesis of global strategy in preventive medicine; it is the same idea, really, translated by a different mind. It is an idea that was very well caught by John Donne, whose words, written in the seventeenth century, are often quoted nowadays when their truth is becoming more and more evident.

> No man is an Ilande, intire of it selfe; every man is a peece of the continent, a part of the Maine; if a Clod be washed away by the Sea, Europe is the lesse as well as if a Promontorie were; as well as if a Mannor of thy Friendes or of thine own were; any man's death diminisheth me because I am involved in Mankinde.

Current Comment.

HOSPITAL WISDOM: THE PATIENT'S POINT OF VIEW.

ONE of *The Lancet's* peripatetic correspondents—a noble and knowledgeable band—from his experience "in and out of hospitals, man and boy, as patient, student and doctor for the past fifteen years", regretfully reports[1] that many conditions have not improved in the least. His account, apparently written from the receiving end, of an intramuscular injection given with "a gay abandon acquired through years of malpractice" should be read by every nurse or doctor who presumes to broach an epidermis; some would benefit by, perhaps only by, sharing the experience. One's sympathy is quickened as he goes on to tell of the ward sister's obsession with the "p.c." administration of medicines, of the "evening catechism" with its threat of cascara, of hospital diet by which "even the most active of guts are soon undermined", and of the rigours of a commode-less ward. He is obviously a philosophical soul, for he has met only one nurse who made him "mad" with her noisiness and strident voice, and he knows no more sympathetic and welcome character than "the night-nurse who optimistically rubs a mixture of water, alcohol, powder and soap into your gluteal muscles at three in the morning". He is the type likely to have left the worst untold, but whether it would be for good or ill for us to know more is debatable. We turn with something of relief from our half-suppressed desire to tear away the veil of his silence to listen to someone offering wise counsel; for Miss Olive Matthews has written and illustrated a little book on how to improve the daily life of the patient in the ward.[2] This is a book to tantalize patients, to disquiet nursing staffs, to exasperate hospital administrators, and the tantalization, the disquiet and the exasperation will arise not because the ideas offered are impractical and idealistic, but because they are simple, practical and insistent. Their greatest claim to scorn lies in the fact that many are very obvious, but they must be immune from scorn until they are universally applied, and that time is not yet. In its 32 pages, with commendable economy of words, this book contains sensible suggestions on practically every aspect of the patient's ward environment. Matters of medical treatment are carefully avoided. The first chapter deals with lighting and how it can be arranged to help and not to bother patients. Next meals and drinks are discussed, with emphasis on punctuality of meal times and attractive service. Hints are offered on obtaining privacy for patients in open wards. Points seldom thought of are brought forward on the size and design of visitors' chairs. The problem of means of summoning aid is considered and followed by a chapter on noise and its avoidance. Pictures, clocks and wall-colouring, clothing and luggage

[1] *The Lancet*, December 23, 1950.

[2] "Hospital Improvements: How to Improve the Daily Life of the Patient in the Ward", written and illustrated by Olive Matthews; 1950. 5¼" × 8¼", pp. 32, with four illustrations. Price: 1s. 6d. post free from Miss O. Matthews, 22 Harrington Gardens, London, S.W.7.

cupboards, bed-tables and trays, and bedside lockers—all are discussed in the light of Miss Matthews's extensive observations and careful thought; a bedside locker of her own design, which is illustrated and described, has many sound features. Chapters follow on window boxes, bird tables and mirrors, on a library and shopping service, on occupations (for interest and for therapy), on correspondence and birthdays, and on visitors; in each a commonsense approach is made to the patient's welfare. A brief chapter deals with out-patients and enquiries, and finally, in the author's words, "the long-standing grievance of the early morning wash is attacked". Apart from the design for a bedside locker there is little in this book that the author would claim as original. Most of the ideas are in practical use in one hospital or another. It is, however, extremely doubtful that any one hospital observes the lot —and it must be admitted that nearly every suggestion is reasonable, practicable and desirable, provided one accepts the view that the patient really is the most important person in a hospital and is in fact its *raison d'être*.

OBSERVATIONS ON RETICULOCYTES IN ANÆMIA.

THE physiological importance of the reticulocyte is well known, though it is often difficult to interpret the significance of these cells in the circulating blood. This difficulty is due in part at least to divergences in the technical methods employed. For example, compensation courts have been known to be puzzled by considerable discrepancies in counts of stippled cells carried out by different pathologists on patients suffering from suspected lead poisoning. Looking at another aspect of the development of reticulocytes, we can derive interest from the study of ripening of the cells in peripheral blood. It can be shown that reticulocytes disappear progressively from blood after it has been withdrawn and incubated at body temperature. It is believed that a similar process takes place naturally in the circulating blood. Experimental work, of course, suggests itself, and this has been the subject of considerable study in animals. A. Nizet and F. S. Robschreit-Robbins have used dogs for this purpose, and have also refined the technique of measuring the ripening time of the reticulocytes.[1] They found that the most convincing results were obtained by studying dogs with a simple anæmia produced by periodic withdrawal of blood, and hypoproteinæmia caused by feeding on a diet with a low protein content. Care was taken to secure adequate supply of vitamins in this basic diet. Simple anæmia alone troubled the experimental animals very little, for they could live long and maintained good health. The combination of a lowered hæmoglobin content and a reduced protein in the blood is of course suggestive of certain clinical states in the human subject, and thus of special interest. In the experiments carried out by these investigators blood was withdrawn and heparinized, and the plasma was removed by spinning. Staining with brilliant cresyl blue enabled the cells to be critically examined under dark ground illumination, which eliminated the risk of confusion between the different types of cells. The reticulocytes could be distinguished by groups, and investigation showed that these groups corresponded with successive stages in the process of ripening. It was then comparatively simple to study the ripening process under varying conditions produced by the addition to the blood of different substances, such as glucose, and in particular, amino-acids. Two hundred and seven experiments were carried out on non-anæmic, anæmic and "doubly depleted" dogs, the last-named being those which had reduction of both the hæmoglobin and the blood proteins. The relationship of the number of reticulocytes to the rate of regeneration of hæmoglobin was neither close nor constant. This tallies with clinical observations on the number of reticulocytes in the peripheral blood. When the stress of lowered blood protein level was added to that of a reduced hæmoglobin content, however, the ripening time and the rate of blood regeneration were closely related. Feeding these experimental animals on a diet poor either in protein or in hæmoglobin regeneration power blocked the process of ripening, and in proportion as the diet improved in these factors so the reticulocytes responded by quicker ripening. The experiments in which the effect of the addition of amino-acids was studied indicated that these substances were all-important, for the addition of the ten amino-acids regarded as indispensable *plus* glycine was found to be essential for ripening *in vitro*. The authors consider that the presence of the reticulum in young red cells and the synthesis of hæmoglobin are related.

This work shows that where a double depletion of hæmoglobin and blood protein exists the essential cause is a lack of a certain factor or factors. This type of experimental method is rather closer to clinical requirements than some. It recalls especially such conditions as chronic sepsis, and in particular that associated with osteomyelitis, in which the results of blood transfusion and a diet rich in first-class protein have been gratifying. Fortunately, the use of penicillin and the later members of the sulphonamide series have minimized the risk of the production of the unwelcome combination of anæmia and hypoproteinæmia. In the past, too, the administration of sulphanilamide to nephritic patients who were suffering from a septic complication has sometimes produced an embarrassingly rapid anæmia. These events may now be less likely than hitherto, but it is still necessary to remember the evils which may arise from the state called by Nizet and Robscheit-Robbins in their dogs "double depletion".

[1] *Blood*, July, 1950.

CARDIAC ARREST DURING OPERATION.

EVERY case of cardiac arrest occurring during a surgical operation warrants study, not because of rarity or dramatic interest, but because it belongs to the very small group of emergencies in which the time factor and the exactly right treatment are all-important. At the Mayo Clinic, according to F. H. Lahey and E. R. Ruzicka, there is an average of two cases of cardiac arrest each year; the recorded total is 15. All hearts have been revived. Seven patients survived the complication, and one appeared to recover but died on the second post-operative day after a coronary occlusion. Others have reported a similar incidence, and every surgical centre of any size may expect the complication from time to time. Whether these patients live or die, Lahey and Ruzicka point out, is based upon "how well the operating personnel is organized to deal with the instances which occur". "We must look on every patient who does have cardiac arrest as one which can literally and dramatically have his or her life saved if we can drill and train our operating room staffs and ourselves to do it." Three and a half minutes is the physiological time limit; interruption of circulation to the brain beyond that has been shown to result in permanent changes in psychic behaviour. Interruption for eight minutes and forty-five seconds is incompatible with life for more than a few hours. Effective action is possible only with organized teamwork, planned procedures, and readily available instruments and drugs. Lahey and Ruzicka recommend that some plan of action be posted in every operating room, and describe the plan that they have found satisfactory in experience at the Mayo Clinic. It has four main elements: artificial respiration with 100% oxygen; immediate cardiac massage by the surgeon; drug therapy with procaine and adrenaline; general methods of treatment, including the intravenous administration of fluids and the institution of a 5° to 10° Trendelenburg position. The details are in the paper for those interested and are important, but they need not be quoted here. The essential point is that surgeons, anæsthetists and hospital administrators should be conscious of this complication and of the effectiveness of treatment. The indispensable element in effective treatment is detailed preparedness.

Abstracts from Medical Literature.

OBSTETRICS AND GYNÆCOLOGY.

The Cause of Breech Presentation.

CHARLES S. STEVENSON (*American Journal of Obstetrics and Gynecology*, July, 1950) has shown that the placental position in the term or near-term uterus could be determined accurately in 97·8% of cases. He reports his investigations into the influence of placental implantation on breech presentation. In all, 76 gravid women were studied who had persistent breech presentation at term or near-term, and it was found that the in-situ placenta was implanted over one lateral, fundal and tubal area of the uterine wall in all cases. The author states that since the head of the fœtus is smaller than its breech and legs, the head will tend to accommodate itself to the smaller pole of the amniotic sac ovoid, whilst the breech will tend to occupy the larger lower uterine segment of the sac. Thus cornual implantation of the placenta as it indents and alters the shape of the amniotic sac is concluded to be the principal cause of breech presentation of the human fœtus. The implantation site was verified at delivery or Cæsarean section in 16% of the cases by intrauterine palpation of the still in-situ placenta. Primiparity and right axial torsion of the uterus also play a major role in maintaining the persistence of breech presentation until term. The author proposes the following new obstetrical principle: "The position of the implanted placenta in the near-term, or term, human uterus, as it indents and alters the ovoid shape of the amniotic sac, determines the polarity of the sac independently of the fixed polarity of the containing uterus; functionally, the fœtus accommodates itself to the shape of the sac, the fœtal head seeking its smaller pole; and thus the placental implantation site has a determining effect upon the presentation of the fœtus."

Urinary Tract Injuries in Gynæcology.

H. J. HOLLOWAY (*American Journal of Obstetrics and Gynecology*, July, 1950) presents a study of urinary tract injuries in gynæcological surgery over seven years at the Evanston Hospital. He states that in a series of 4491 operations there were 31 injuries to the urinary tract; 22 of these were bladder injuries and nine injuries to the ureter. Injuries to the bladder, whether recognized or not, occur with almost equal frequency in total, subtotal and vaginal hysterectomies; most occur during its mobilization from the body of the uterus and cervix, especially when the bladder is distorted by tumours or adherent from inflammation or previous operation. Vesical fistulæ may follow an incised wound, necrosis may occur from clamping or pressure from retractors, or a suture which has caught the bladder may cut through. Fifteen of the bladder injuries were recognized at the time of operation and immediately repaired; the bladder was put at rest with an indwelling catheter, and all patients had uneventful recoveries. In seven cases the bladder injury was not recognized at operation, and in all the post-operative course was stormy. Injuries of the ureters are more serious than those of the bladder, particularly as so many of them are not recognized during the operative procedure. Of the nine in this series only two were recognized at operation. Complete abdominal hysterectomy with removal of intraligamentary tumours is the procedure in which ureteral injury is most likely to occur. The most frequent site is just lateral to, and below, the uterine artery—that is, 1·5 centimetres from the cervix at the level of the internal os; the next most common site is the point at which the ureter passes over the brim of the pelvis. If the ureter is severed, and the fact is recognized at the time, management depends on the level at which it was divided and also the condition of the other kidney. Uretero-cystostomy and ureteral anastomosis over a ureteric catheter are satisfactory methods of repair. If these are not possible, the cut end of the ureter may be brought through a stab wound in the abdominal wall as a temporary method, or the cut ends of the ureter may be ligated to promote atrophy of that kidney, provided it is known that the other kidney is present and sound. Uretero-intestinal anastomosis is not highly thought of. If the ureter is tied or clamped during an operation and this is discovered, the ligature or clamp should be immediately removed, and after the operation a ureteric catheter should be inserted and left in for seven to ten days. Vesico-vaginal fistulæ often heal spontaneously, but ureterovaginal fistulæ in the author's experience heal spontaneously only because of ultimate non-functioning of the kidney. A complete urological study should therefore be made as soon as possible in these latter cases to determine the best means of preserving function of the affected kidney. The author urges that methylene blue be instilled into the bladder before all major gynæcological procedures, as an aid to the immediate recognition of bladder injuries, and that catheters be placed in the ureter prior to any gynæcological procedure in which extensive adhesions or difficult dissections are anticipated.

Some Aspects of Chorionepithelioma.

ALAN BREWS (*The Journal of Obstetrics and Gynæcology of the British Empire*, June, 1950) draws attention to the salient points in the pathology, hormone assays, treatment and mortality of chorionepithelioma. He states that hydatidiform mole is now generally recognized as an important ætiological factor in the development of chorionepithelioma and occurs in 4% of all human pregnancies. He quotes the conclusion of Hertig and Edmonds that the typical mole is usually derived from an abnormal ovum which fails to abort—the majority abort spontaneously before the end of the third month; when they continue longer the uterus enlarges at a rapid rate in 30% of cases, whilst in the remaining 70% the uterus is of average or below average size. Hormone assays should be interpreted in the light of the following data: (i) A positive result from a pregnancy test will be given with dilutions of 1:100 or even 1:200 about the sixtieth day of a normal pregnancy owing to the peak output of chorionic gonadotropin at this time. (ii) High concentrations of hormone are present in the urine of many patients with a normal multiple pregnancy, or with oliguria from severe *hyperemesis gravidarum* or toxæmia of pregnancy; a positive result from a pregnancy test with a dilution of 1:500 or more is unlikely to be encountered apart from hydatidiform mole or chorionepithelioma. (iii) A latent interval of up to six months' duration and probably longer, with repeated negative results from tests, may exist between the termination of a pregnancy and the development of evidence of the presence of chorionepithelioma. (iv) After the successful treatment of a chorionepithelioma the results of pregnancy tests on undiluted urine became negative within thirty days in 66% and within three months in 95%; a more persistent positive result is of the gravest prognosis. (v) A few cases are on record of a full-term normal pregnancy intervening between the expulsion of a hydatidiform mole and the development of chorionepithelioma. (vi) A long latent interval may exist between the last recognizable pregnancy and the development of chorionepithelioma; intervals of five to thirteen years have been reported. Total abdominal hysterectomy is the treatment of choice for chorionepithelioma originating in the body of the uterus. Conservation of the ovaries in a young patient is permissible, as spread is by the blood-stream. Abdominal hysterectomy as a method of diagnosis is condemned. Recent figures show a mortality rate of 2% in hydatidiform mole and 10% in chorionepithelioma.

Elective Operations for Pelvic Prolapse.

A. C. G. FROST (*American Journal of Obstetrics and Gynecology*, September, 1950) has reviewed 500 elective operations for the cure of pelvic prolapse in women aged over sixty years, in an attempt to determine whether it is justifiable to subject elderly but apparently healthy women to this operation. The risks are assessed by a study of the mortality rate, the morbidity rate and post-operative complications. Approximately half the patients were aged over sixty-five years, and 39% of the patients had hypertension. Diabetes, varicose veins and myocarditis were the commonest medical complications. Most patients were treated by vaginal repair operation, but 11% had vaginal hysterectomy, 5% had the interposition operation and 0·8% had the Le Fort operation. Ether anæsthesia was used for 59% of patients, 27% had spinal anæsthesia and 3% had local anæsthesia. There were four deaths in the series of 500 cases and all were probably due to embolus. The deaths occurred between the eighth and seventeenth post-operative days. Fifty-two *per centum* of patients had no post-operative complications. Pneumonia was a complication in eight cases and phlebitis was noted in five non-fatal cases. Pulmonary embolus occurred in six cases, and four of these were fatal. No anticoagulation therapy was administered to any of the patients, and the author wonders whether the patients who developed emboli would have been saved by anticoagulation therapy given immediately after operation. He questions whether elderly women with severe varicosities should be submitted to operation, or whether ligation of the veins should be performed before vaginal plastic operations. The author considers that old age should not be

measured by years, but by physical and mental competency. Pre-operative investigation is recommended. He hesitates to operate on elderly women with severe varicosites. Early ambulation (on the first and second post-operative days) and prophylactic antithrombotic treatment may lower the incidence of pulmonary embolism.

Blood Coagulation Defects Associated with Accidental Hæmorrhage.

A. E. WEINER, D. E. REID and C. C. ROBY (*American Journal of Obstetrics and Gynecology*, August, 1950) present a study of the alterations in the coagulation mechanism of the blood in cases of severe premature separation of the placenta. Three cases in all were studied, and the pattern of change was similar in each: there was a reduction in fibrinogen concentration and prothrombin activity and the presence of a circulating fibrinolysin. The changes did not appear to be due to shock and hæmorrhage alone, as patients with blood loss from incomplete abortion, *placenta prævia*, and post-partum hæmorrhage from uterine atony showed on investigation normal coagulation mechanisms. The authors believe that coagulation defects follow, rather than precede, the placental separation, as in two cases the mechanism was normal when investigated prior to separation. The defect also seems to be restricted to the severe types. The detection of these changes requires repeated observations of the size and stability of the clot formed by the patient's venous blood when incubated at 37° C. When clot stability is inadequate, a transfusion of 1500 millilitres of blood is indicated to replace blood loss and raise prothrombin activity. In addition 2000 to 6000 milligrammes of fibrinogen should be given to reestablish the blood fibrinogen concentration to normal values. As fibrinogen and prothrombin may be dissipated during labour, it is necessary to repeat the therapy if clot instability reappears. If adequate levels of fibrinogen and prothrombin are present at delivery they are maintained thereafter. The status of the coagulation mechanism at the time of delivery may be more important than the type of delivery, in cases of accidental hæmorrhage.

Œstrogens and Progesterone and Myometrial Contractions.

J. S. HENRY, J. S. L. BROWNE AND ELEANOR H. VENNING (*American Journal of Obstetrics and Gynecology*, September, 1950) review previous experimental studies on the physiology of myometrial contractions in human beings and experimental animals. They report the study of tracings of the contractions of the human uterus in women with normal menstrual cycles, in women with proved abnormal *corpora lutea*, and in women in whom menstruation has been induced artificially by hormonal treatment. The authors, together with other workers in recent years, do not agree with the findings of Knaus, Reynolds and others which suggested that the non-pregnant human uterus contracted strongly and responded typically to pituitrin in the follicular phase of the cycle and became inert and did not react to pituitrin in the luteal phase. Previous theories of the cause and treatment of abortion and of the cause of the onset of labour had been based on these latter concepts. The authors observe that the contractions of the human uterus are small, rapid and regular under the influence of œstrogen alone, and that the injection of pituitrin has little effect on myometrial contractions. On the other hand, contractions are slow, irregular and greater in amplitude during the advanced luteal phase of the cycle, and pituitrin has a pronounced effect in increasing the tone, frequency and amplitude of contractions. Their tracings suggest that adequate amounts of the two hormones, in suitable proportions and acting for a sufficient length of time, are necessary factors for the development of maximal luteal type contractions and response to pituitrin. Tracings taken on patients with proved defective *corpora lutea* and on patients in whom menstruation is induced by hormonal treatment suggest a quantitative relationship between the amount of progesterone available and the development of the luteal type of contractions. When adequate doses of progesterone are added to those of œstrogen the typical luteal contractions occur and the typical response to pituitrin is obtained. The authors consider that uterine contractions may be myogenic in origin rather than neurogenic or hormonal, but that the synergistic action of combined œstrogen and progesterone in adequate quantities acting over a sufficient length of time influences these contractions. Contractions of the human myometrium are most efficient at the end of the normal menstrual cycle and at the end of normal pregnancy.

Ectopic Pregnancy.

J. W. BELL and F. M. INGERSOLL (*American Journal of Obstetrics and Gynecology*, July, 1950) analyse the symptomatology in 130 consecutive patients with ectopic pregnancy treated at the Massachusetts General Hospital from 1937 to 1946. Pain was the most common and most dependable symptom, occurring as the presenting symptom in 120 cases (92%). It was usually sharp or crampy in nature and often localized to one or other lower abdominal quadrant. Low back pain and low midline or hypogastric pain were not uncommon. The onset of bleeding usually did not correspond with the onset of pain initiating the acute episode. Slight to moderate flowing was often present several days before the onset of pain. Bleeding was the second most dependable cardinal point in diagnosis, as it occurred in 109 cases (83·8%). In the great majority of cases the patient experienced several weeks of intermittent or daily bloody vaginal discharge preceding the attack of pain. Definite amenorrhœa was almost universally absent, but the principal error was the assumption by both patient and physician that the last period had been normal in all respects; a period of intermittent bleeding, several days overdue, may easily be interpreted as the last menstrual period. A palpable lower quadrant or pelvic mass was thought to be present in only 33 cases (25·4%). It was the general impression that a palpable mass was not a reliable sign, and in the majority of cases laparotomy was undertaken without further delineation of a mass. Clinical shock upon admission was present in only 20 cases (15·3%). Infusion of a large quantity of blood under pressure may be necessary to bring the patient to an operable state; otherwise laparotomy with ligation of the bleeding vessel, despite the patient's critical condition, may be necessary before transfused blood can relieve the hæmorrhagic shock. Pregnancy symptoms were most unreliable as a diagnostic aid—many *multiparæ* were quite certain they were not pregnant. The correct pre-operative diagnosis was made in 55 out of 82 cases, but over the same period 23 patients were operated upon under the mistaken diagnosis of ectopic pregnancy. One third of the patients were examined under anæsthesia, and diagnostic dilatation and curettage performed. Decidua was found in 22·6% of patients undergoing this procedure. The Aschheim-Zondelk test was utilized in 40 cases, and the result was positive in three-fourths of this number; the four to five day interval necessary for this test is its chief drawback. The febrile response was variable; the highest temperature recorded was 101·2° F. The diagnosis was proved by operation in every case, and there was no operative mortality. Ruptured ectopic gestation was found in 63 cases (48%); hæmoperitoneum varying from 50 millilitres to almost two litres was found in 87 (67%). Incomplete tubal abortion was discovered in 28 cases (21%); in many cases of large hæmoperitoneum active bleeding from the free end of the tube was discovered as the only possible cause. Four patients gave a history of previous ectopic pregnancy, and one apparently normal intrauterine pregnancy estimated at two and one-half months was discovered. There were two interstitial pregnancies.

Endometrioma of the Labium Majus.

E. W. KIRK (*The Journal of Obstetrics and Gynæcology of the British Empire*, April, 1950) reports a case of endometrioma of the posterior half of the *labium majus* and discusses the possible origin of this neoplasm. The patient was a spinster, aged thirty-six years, who complained of progressive dysmenorrhœa and menorrhagia of one year's duration. A blue nodular swelling measuring 2·0 centimetres by 1·5 centimetres by 1·0 centimetre appeared on the posterior half of the left *labium majus* at each menstrual period. This was firm in consistency, movable on the deeper structures, but attached to the overlying skin with associated ulceration. The uterus was a little enlarged especially on the left side. The nodule was excised and Dr. E. Novak considered the histological features to be those of vulval endometriosis. The author considers the vulval condition to be possibly secondary to pelvic endometriosis. Endometriosis associated with the round ligament extraperitoneally in the groin, *labium majus* and femoral canal has been reported in the past; but this tumour was situated so far posteriorly in the labium that an association with the peritoneum of the canal of Nuck seems unlikely. The author considers metastatic spread via lymphatics and veins from pelvic endometriosis the most likely origin of the tumour. He thinks that this tumour has arisen by communication between the broad ligament and paracervical veins and lymphatics.

British Medical Association News.

ANNUAL MEETING.

THE annual meeting of the Victorian Branch of the British Medical Association and of the Medical Society of Victoria was held at the Medical Society Hall, Albert Street, East Melbourne, on December 6, 1950, DR. ROBERT SOUTHBY, the President, in the chair.

ELECTION OF OFFICE-BEARERS AND MEMBERS OF COUNCIL.

The Medical Secretary announced that the Council had elected the following office-bearers:

President: Dr. R. F. Watson.

Vice-Presidents: Dr. C. Byrne, Dr. L. H. Ball.

Chairman of Council: Dr. H. C. Colville.

Honorary Treasurer: Dr. D. J. Thomas.

Honorary Librarian: Dr. H. G. Furnell.

Honorary Secretary: Dr. H. Hiller.

Past President: Dr. R. Southby.

The Medical Secretary announced that the following had been elected members of the Council by the general body of members: Dr. A. E. Brown, Dr. C. Byrne, Dr. H. G. Furnell, Dr. K. H. Hallam, Sir Victor Hurley, Dr. H. W. James, Dr. L. W. Johnston, Dr. M. O. Kent Hughes, Dr. J. H. Lindell, Professor P. MacCallum, Dr. A. H. Melville, Major-General F. K. Norris, Dr. B. K. Rank, Dr. R. Southby.

The Medical Secretary announced that the following had been elected members of the Council by the subdivisions: Dr. W. R. Angus, Dr. L. H. Ball, Dr. M. H. Box, Dr. D. D. Browne, Dr. D. A. Carter, Dr. B. D. Fethers, Dr. W. J. Flanagan, Dr. P. Goodman, Dr. A. B. Hewitt, Dr. J. G. Johnson, Dr. A. B. McCutcheon, Dr. D. G. MacKellar, Dr. L. A. Neal, Dr. C. A. M. Renou, Dr. W. A. Sloss, Dr. T. G. Swinburne, Dr. R. F. Watson, Dr. G. R. Weigall.

The Medical Secretary announced that the ex-officio members of the Council were Dr. H. C. Colville, Dr. F. L. Davies, Sir John Newman-Morris, Dr. D. Roseby, Dr. D. J. Thomas (trustees of the Medical Society of Victoria), Dr. J. G. Major (director of the Australasian Medical Publishing Company, Limited).

The representative of the Victorian Medical Women's Society was Dr. Elizabeth McComas.

ANNUAL REPORT OF THE COUNCIL.

The annual report of the Council, which had been circulated among members, was received and adopted on the motion of Professor P. MacCallum, seconded by Dr. Robert Fowler. The report is as follows.

Election.

At the annual meeting held last December, the following members of the Council and of the committee were elected: Dr. A. Brown, Dr. C. Byrne, Dr. J. Dale, Dr. H. G. Furnell, Dr. K. H. Hallam, Dr. Victor Hurley, Dr. H. M. James, Dr. L. W. Johnston, Dr. M. O. Kent Hughes, Dr. J. H. Lindell, Professor P. MacCallum, Major-General F. Kingsley Norris, Dr. B. K. Rank and Dr. R. Southby.

The following were elected to represent the subdivisions: Dr. L. H. Ball, Dr. M. H. Box, Dr. D. D. Browne, Dr. D. A. Carter, Dr. B. D. Fethers, Dr. A. B. Hewitt, Dr. P. Goodman, Dr. J. G. Johnson, Dr. A. McCutcheon, Dr. D. G. MacKellar, Dr. L. A. Neal, Dr. M. L. Powell, Dr. J. J. Searby, Dr. W. A. Sloss, Dr. T. G. Swinburne, Dr. R. F. Watson, Dr. G. R. Weigall and Dr. L. J. Westacott.

Under Rule 9 of the Branch, Council elected Dr. Elizabeth McComas, who was nominated by the Victorian Medical Women's Society.

The following are ex-officio members: the trustees of the Medical Society of Victoria, Sir John Newman-Morris, Dr. H. C. Colville, Dr. F. L. Davies, Dr. D. Roseby, Dr. D. J. Thomas, and the Director for Victoria of the Australasian Medical Publishing Company, Dr. J. P. Major.

Cooption: Dr. Hugh Melville and Dr. H. G. Hiller were coopted members of the Council.

The Council elected the following office-bearers: *President*, Dr. Robert Southby; *Vice-Presidents*, Dr. Roy Watson and Dr. Charles Byrne; *Chairman of Council*, Dr. H. C. Colville; *Honorary Treasurer*, Dr. Douglas Thomas; *Honorary Librarian*, Dr. H. Furnell; *Honorary Secretary*, Dr. Leonard Ball.

The executive consisted of the president, the immediate past president, Dr. D. J. Thomas, and other office-bearers.

Attendances at Council Meetings.

Fourteen meetings of the Branch Council were held, the following showing the attendances:

Dr. M. H. Box	14	Dr. D. D. Browne[1]	8
Dr. H. C. Colville	14	Dr. L. H. Johnston	8
Dr. R. Southby	14	Dr. B. K. Rank	7
Dr. L. H. Ball	13	Dr. L. A. Neal	6
Dr. G. R. Weigall	13	Dr. J. Dale	5
Dr. A. E. Brown	12	Dr. P. Goodman[1]	5
Dr. D. A. Carter[1]	12	Maj.-Gen. F. K. Norris[2]	5
Dr. M. O. Kent Hughes	12	Dr. D. J. Thomas[2]	5
Sir Victor Hurley	12	Professor MacCallum	4
Dr. D. Roseby	12	Sir John Newman-Morris[2]	4
Dr. C. Byrne	11	Dr. F. L. Davies	4
Dr. M. L. Powell	11	Dr. H. G. Furnell	4
Dr. A. H. Melville	11	Dr. K. H. Hallam	4
Dr. W. A. Sloss[2]	11	Dr. J. G. Johnson	3
Dr. H. G. Hiller	11	Dr. T. G. Swinburne	3
Dr. D. G. MacKellar	11	Dr. B. D. Fethers	2
Dr. J. P. Major	10	Dr. H. M. James	2
Dr. L. J. Westacott	10	Dr. E. McComas	2
Dr. A. B. Hewitt	10	Dr. A. B. McCutcheon	1
Dr. R. F. Watson[3]	10	Dr. J. H. Lindell	1
Dr. J. J. Searby	9		—

The highest attendance at any one meeting was 32, and the average attendance was 23.

Appointment of Subcommittees.

The following subcommittees were appointed by Council at the beginning of the year (the first-named acting as convener of the subcommittee):

Ethics.—Dr. Major, Dr. Davies, Sir John Newman-Morris, Dr. McCutcheon and the executive.

Finance, House and Library.—Dr. Thomas, Dr. Furnell, Major-General Norris and Dr. Weigall.

Legislative.—Dr. Davies, Dr. Dale, Dr. Colville, Dr. Rank and Dr. Watson.

Organization.—Dr. Swinburne, Dr. Ball, Dr. Box, Dr. Brown, Dr. Byrne, Dr. Colville, Dr. Dale, Dr. Fethers, Dr. Furnell, Sir Victor Hurley, Dr. J. G. Johnson, Dr. L. W. Johnston, Dr. Kent Hughes, Dr. McComas, Dr. McCutcheon, Dr. Neal, Dr. Powell, Dr. Rank, Dr. Roseby, Dr. Southby, Dr. Watson, Dr. Weigall and representatives of the country subdivisions.

Science.—Professor MacCallum, Dr. Hallam, Dr. L. W. Johnston, Dr. Lindell, Major-General Norris, Dr. Powell and Dr. Watson.

Hospital.—Dr. Southby, Dr. Ball, Dr. Colville, Dr. Fethers, Dr. Hallam, Sir Victor Hurley, Dr. James, Dr. Lindell, Dr. Neal, Dr. Watson and Dr. Weigall.

Correspondence.—Dr. Ball and Dr. Colville.

Worker's Compensation.—Dr. Ball, Dr. Byrne, Dr. Colville, Dr. Kent Hughes and Dr. Rank.

Publicity.—Dr. Ball, Dr. Byrne, Dr. Swinburne, Dr. Thomas and the Medical Secretary.

Building Committee.—The President, Honorary Treasurer, Honorary Secretary and Dr. Coates.

Appointments and Nominations.

Medico-Pharmaceutical Liaison Committee.—Dr. Roseby, Dr. Byron Stanton, Dr. Thomas, the President (*ex officio*), and the Medical Secretary.

Trustees of the Medical Society of Victoria.—Dr. H. C. Colville, Dr. F. L. Davies, Sir John Newman-Morris, Dr. D. Roseby and Dr. D. J. Thomas.

Central Council, British Medical Association.—Dr. M. L. Formby.

Federal Council.—Dr. Charles Byrne, Dr. H. C. Colville and Sir Victor Hurley.

British Medical Agency.—Major-General F. K. Norris, Dr. G. Robinson, Dr. D. J. Thomas and the Medical Secretary.

British Medical Insurance Company of Victoria, Limited.—Directors: Sir John Newman-Morris (chairman), Dr. C. H. Dickson, Dr. H. G. Furnell, Sir Victor Hurley, Dr. W. W. S. Johnston and Major-General F. K. Norris. Following the death of Dr. L. S. Latham, Dr. H. G. Furnell was appointed to the directorate. Secretary: Mr. J. M. Ford.

Victorian Correspondent, "The Medical Journal of Australia".—Dr. H. Boyd Graham. (Dr. Boyd Graham resigned during the year, and Dr. H. G. Hiller was appointed to succeed him.)

[1] Represented by substitute at one meeting.

[2] Represented by substitute at two meetings.

[3] Granted leave of absence during the year.

Victorian Correspondent, "The British Medical Journal".—Dr. H. Boyd Graham. (Dr. Boyd Graham resigned during the year, and Dr. H. G. Hiller was nominated to succeed him.)

Victorian Bush Nursing Association.—Dr. E. McComas.

Hospital Benefits Association.—Dr. C. H. Dickson, Major-General F. K. Norris, Dr. D. Roseby and Dr. G. R. Weigall.

Electoral Board, Medical Staffing of Base Hospitals.—Dr. J. P. Major and Major-General F. K. Norris.

Medical Eye Service of Victoria.—Dr. R. Stott.

Free Kindergarten Union.—Dr. H. Boyd Graham.

Victorian Baby Health Centres' Association.—Dr. M. L. Powell.

Melbourne University Union: Graduates' Section.—Dr. H. Douglas Stephens.

Victorian Institute of Hospital Almoners.—Sir John Newman-Morris.

Lord Mayor's Fund.—Sir John Newman-Morris.

Victorian Council for Mental Hygiene.—Dr. Dale and Dr. G. R. Weigall.

Melbourne Permanent Post-Graduate Committee.—Professor P. MacCallum, Dr. J. P. Major and Dr. B. Milne Sutherland.

Medical Officers' Relief Fund (Federal).—Advisory Committee: Dr. F. L. Davies, Dr. D. J. Thomas and W. G. D. Upjohn.

Federal Medical War Relief Fund.—Advisory Committee: Dr. F. L. Davies, Dr. D. J. Thomas and Dr. W. G. D. Upjohn.

Services Recognition Fund (formerly Legacy Fund).—Dr. A. E. Coates, Major-General F. K. Norris and Dr. D. J. Thomas.

Australian Aerial Medical Service.—Sir John Newman-Morris.

Nurses' Board.—Dr. W. M. Lemmon and Dr. G. Penington.

Dietetic Association of Victoria.—Dr. John Dale.

Committee of Lord Mayor's Country Children's Holiday Camp.—Dr. T. L. Tyrer.

Society for Crippled Children.—Dr. H. Boyd Graham.

Anti-Cancer Council of Victoria.—Sir Victor Hurley, Dr. J. E. Clarke and Dr. H. Searby.

Opticians' Registration Board.—Dr. T. a'B. Travers and Dr. F. G. Fenton.

National Safety Council of Australia.—Dr John Gowland.

Masseurs' Registration Board.—Dr. C. Hembrow and Dr. F. May.[1]

Joint Insurance Adjudication Committee.—Dr. L. H. Ball, Dr. D. Roseby and Dr. W. Upjohn.

National Committee of British Commonwealth Collection of Microorganisms.—Professor Rubbo.

Victorian Council of Speech Therapy.—Dr. R. Southby.

Annual Representative Meeting, British Medical Association, Southport, 1950.—Representative: Dr. D. J. Thomas. Delegate: Air Commodore E. A. Daley.

Medical Advisory Committee, Hospitals and Charities Commission.—Dr. McCutcheon and Dr. Southby.

National Radio Health Week.—Dr. J. Dale.

Rotary Club (Citizens' Committee).—Dr. R. Southby.

Save the Children Fund.—Dr. V. Collins.

Sixth International Congress of Radiology.—Victorian branch representative: Dr. T. L. Tyrer.

Branch Convocation.

The following were elected for the year 1950. *Melbourne Central*: Dr. E. E. Dunlop, Dr. G. Springthorpe, Dr. C. H. Fitts, Dr. H. Boyd Graham, Dr. J. E. Clarke, Dr. J. S. Latham,[2] Dr. C. J. O. Brown, Dr. G. N. Morris, Dr. K. Mackay, Dr. M. Tallent, Dr. J. O'Sullivan, Dr. T. G. Millar, Dr. G. Penington, Dr. H. Phillips. *Eastern Suburban*: Dr. J. K. Gabriel, Dr. J. R. Goding, Dr. G. W. Ashton, Dr. W. Carrington, Dr. W. Hewitt, Dr. B. Hughes, Dr. A. G. Judkins, Dr. F. J. McCoy, Dr. R. H. Stevens. During the year Dr. G. W. Ashton ceased practising in this subdivision and Dr. A. S. Ferguson was appointed in his stead. *South Central*: Dr. Roy Park, Dr. D. M. Dunn, Dr. M. M. Perl, Dr. A. Thomson, Dr. D. Bodycomb. *Western Suburban*: Dr. E. F. J. Smith, Dr. L. Joel, Dr. L. J. Gurry. *Northern Suburban*: Dr. S. L. Fredman, Dr. J. E. Dunn. Dr. K. Ratten, Dr. J. O'Keefe, Dr. D. Lear, Dr. A. C. Mathew. *Southern Suburban*: Dr. T. O. Sayle, Dr. H. F. Tucker, Dr. M. H. Mailer, Dr. C. Turner, Dr. L. Middleton. *North-East Suburban*: Dr. M. Ashkenasy, Dr. A. G. Ley. *South-East Suburban*: Dr. V. C. Brown, Dr. C. H. Evans, Dr. G. W. Patterson, Dr. E. Kirsner, Dr. R. M. Shaw, Dr. J. K. D. MacKenzie, Dr. D. Pryde, Dr. D. McG. Steele. *Bendigo*: Dr. W. Rosenthal, Dr. A. L. Newson, Dr. M. Jacobs. *Geelong*: Dr. D. A. Kidd, Dr. N. Laidlaw. *Ballarat*: Dr. G. T. James, Dr. E. Guymer. *South-West Country*: Dr. W. R. Angus, Dr. J. Le M. Kneebone. *Gippsland*: Dr. J. M. Andrew, Dr. S. J. Ingwersen. *North-West Country*: Dr. T. V. Walpole, Dr. J. E. Thomas. *North-East Country*: Dr. F. R. Phillips. *Goulburn*: Dr. R. O. Mills.

[1] Resigned during the year and succeeded by Dr. Leigh Wedlick.

[2] Dr. L. S. Latham died during the year, and Dr. G. Ashton was appointed in his stead.

Membership Roll.

The number of members on the roll at October 30, 1950, was 2170, which is 90 more than last year. One hundred and sixty-eight members were added (98 by election, one by reinstatement by payment of arrears, 68 were transferred from other States, and one by withdrawal of previous resignation); and 78 names were removed (18 by death, 47 by transfer to other States, nine by resignation, and four allowed their subscriptions to fall into arrears).

Honorary medical members number 22.

Complimentary Member.

In recognition of his benefactions to medical education and research, Sir Russell Grimwade was elected a complimentary member of the branch.

Deceased.

Death of the following members and former members is recorded with regret: Dr. C. W. Adey, Dr. E. G. Bannon, Dr. Stanley Cochrane, Dr. P. Dane, Dr. W. H. Fitchett, Dr. G. Gorr, Dr. C. F. Harkin, Dr. J. H. Henderson, Dr. H. H. Jackson, snr., Dr. H. S. Jacobs, Dr. L. S. Latham, Dr. P. H. Liddle, Dr. K. C. McCullough, Dr. J. T. Matthews, Dr. J. E. Mulcahy, Dr. S. J. Newing, Dr. K. F. O'Donnell, Dr. C. Stanley, Dr. A. S. Tymms, Dr. G. Weigall, Dr. J. L. Whitworth, Dr. G. H. Wickens.

After the death of Dr. L. S. Latham, the following special minute was recorded:

> That the Council of the Victorian Branch of the British Medical Association records with regret the death of Leslie Scott Latham, M.A., M.D., B.S., F.R.A.C.P., who, as a member of the Branch Council from 1915 until 1938, and its President in 1923, and as a consulting physician and the holder of many public offices in Victoria, made a great contribution to the professional and public life of the State. Council extends its sympathy to Mrs. Latham and her daughter.

After the death of Dr. G. Weigall, the following special minute was recorded:

> That the Council of the Victorian Branch of the British Medical Association records with regret the death of Gerald Carl Weigall, M.B., Ch.B., who, as a physician to the Children's Hospital from 1897 to 1927, as a member of the Branch Council from 1925 to 1936 and its President in 1934, and in many other public offices, rendered distinguished service to the medical profession and the people of Victoria. Council extends its sympathy to Mrs. Weigall and members of his family.

Congratulations.

During the year the Council had pleasure in conveying congratulations to Sir Neil Fairley, Sir Russell Grimwade, Sir Victor Hurley, Sir Wilberforce Newton and Sir James Spence, who had been granted the honour of knighthood by His Majesty the King, and to Dr. Charles Hill on his election to the House of Commons, Dr. E. S. J. King on his appointment to the chair of pathology in the University of Melbourne, and Dr. Alex Murphy on the great success of the seventh session of the Australasian Medical Congress.

Medical Society Hall.

During the year the Medical Society Hall was repainted, and new curtains and carpets were purchased.

Church Services.

Special services for the medical profession, which were well attended, were held in St. Paul's and St. Patrick's Cathedrals on Sunday, February 12, 1950. Similar services will in future be held annually, and the Cathedral authorities have set aside the second Sunday in February for those services.

The Stawell Memorial Prize for 1949.

The Stawell Memorial Prize for 1949, for their essay on "The Practical Significance of Modern Cardiological Investigations", was awarded to Dr. T. E. Lowe, Dr. H. B. Kay and Dr. H. A. Luke, of the Clinical Research Unit at the Alfred Hospital, and the prize was presented during the seventh session of the Australasian Medical Congress in Brisbane.

Australasian Medical Congress, Seventh Session, Brisbane, 1950.

The seventh session of Congress was held in Brisbane from May 27 to June 3, 1950, and was attended by 132 members from Victoria.

Council had pleasure in conveying to Dr. Alex Murphy, President of Congress, and his committee, its congratulations on the success of the session.

Entertainment.

In January, the Branch Council entertained the members of the Federal Council at luncheon in Melbourne.

In December, 1949, the new graduates who had passed their supplementary examinations were entertained at afternoon tea.

The medical graduates of 1950 were entertained by the Branch Council at afternoon tea.

Following a precedent established in 1949, the President and Executive of the Branch Council entertained representatives of professional and other organizations at dinner at New Ascot House on October 16, 1950.

Golf.

The eleventh annual golf tournament of the Branch was held on November 17, 1949, at the Royal Melbourne Golf Club on its east course at Cheltenham. The championship cup (The Weigall Cup) was won by Dr. J. A. Snell. The handicap cup (The Roseby Cup) was won by Dr. H. F. Tucker.

Meetings of the Branch.

The following Branch meetings were held in Melbourne:

February.—"Prevention of Deformity in Rheumatic Disease", by Dr. Michael Kelly.

March.—"Should the Nutritive Value of Bread in Australia be Improved by Raising the Extraction Rate of Flour?", by Dr. Eben H. Hipsley, Medical Officer in Charge of the Australian Institute of Anatomy, Canberra.

April.—"Gastric Biopsy in Chronic Gastritis and Pernicious Anæmia", by Dr. I. J. Wood and Dr. R. K. Doig.

July.—A symposium on rubella, the speakers being Dr. S. G. Anderson ("Epidemiological Aspects"), Dr. H. McLorinan ("Diagnosis and Prophylaxis"), Dr. W. M. Lemmon ("The Obstetrician's Problem").

August.—"The Victorian Cancer Registry, Organization, Methods and Results", by Dr. Robert Fowler.

September.—The eighth triennial Syme Memorial Lecture, "Recent Developments in the Understanding and Treatment of Thyreotoxicosis", by Mr. Hugh Poate, Honorary Consulting Surgeon, Royal Prince Alfred Hospital, Sydney.

October.—The seventeenth Sir Richard Stawell Oration, "Farewell to Academe", by Sir John Medley, D.C.L., M.A.

November.—"Overseas, 1950", by Major-General F. Kingsley Norris.

The following clinical meetings and demonstrations were held:

May.—Alfred Hospital.

July.—Saint Vincent's Hospital.

August.—Pathology Department, University of Melbourne.

September.—Austin Hospital.

October.—Anatomy Department, University of Melbourne.

The following country meetings were held, at which, in addition to clinical demonstrations, the following lectures were delivered:

March.—Warrnambool: "Head Injuries", by Dr. R. S. Hooper.

August.—Sale: "Urological Problems in General Practice", by Dr. J. S. Peters.

November.—Ballarat: "Some Problems in General Practice", by Dr. L. Hurley.

The Branch Council expresses its appreciation and thanks to the committees and honorary secretaries of subdivisions for the excellent arrangements made for the conduct of meetings, to the wives of members of the subdivisions for the kindness and hospitality to visiting members and their wives, and to the committees of base hospitals for the provision of facilities.

Council also expresses its appreciation and thanks to the staffs of the Alfred Hospital, Saint Vincent's Hospital and Austin Hospital, and the pathology department and the anatomy department of the University of Melbourne for arranging very successful clinical meetings and demonstrations during the year.

Special Meeting of the Branch.

On August 2 a special meeting of the Branch was called to consider a proposed new rule 37A for inclusion in the Rules of the Branch. The new rule, which relates to the income and property of the Branch and of the Society, was adopted without dissent.

Representation on Central Council, British Medical Association.

Resignation of Dr. J. H. Anderson.

The southern group of Branches of the Association in Australia (Victoria, South Australia, Western Australia and Tasmania) has, for some years, been represented on the central Council of the British Medical Association by Dr. J. H. Anderson, of Ruthin Castle, North Wales, who declined renomination on account of illness. The Branch Council, in accepting Dr. Anderson's decision with regret, expressed its thanks to him for the services he had rendered.

Mr. Myles Formby, of London, has succeeded Dr. Anderson as representative on the central Council.

Business of Council.

Following the change of government as a result of the election held in December, 1949, Sir Earle Page, as Minister of Health, opened discussions early in the year with the Federal Council of the British Medical Association in Australia and advanced proposals for the provision, free to patients, of life-saving and disease-preventing drugs which became available on prescription written in duplicate on a doctor's own prescription form, on September 4.

Other proposals of the Minister in relation to a national medical service and the provision of medical services to old age pensioners have not yet come into operation, but it is expected that the scheme for providing for the medical care of pensioners on a fee-for-service basis will commence within the next few months.

At a special meeting of the Branch Council and Convocation held on April 26, Sir Earle Page explained his plans for a national health service.

Following representations to the Health Department, the fees payable to certifying medical practitioners appointed under the *Factories and Shops Act* for the examination and certification of juniors for employment in prescribed factories have been increased from 2s. 6d. to 10s. 6d.

As there has been no uniformity in fees payable to medical officers of health, all those members holding such appointments were invited to submit their opinions, and after they had been considered, the Health Department was informed that in the opinion of Council, medical officers of health should be paid two guineas per hour for immunization, *plus* 9d. per mile travelling expenses, calculated from the time of leaving home until return, the municipal authority to provide all materials, clerical and nursing help.

A new scale of fees for services rendered to medical practitioners called in emergency by midwives was submitted to and adopted by the Midwives' Board.

The Medico-Pharmaceutical Liaison Committee, consisting of representatives of the Branch and the Pharmaceutical Society of Victoria, which was established in 1949 to discuss matters of interest to both parties, continued its meetings during the year, and recommendations of that committee regarding the establishment of a common formulary for use in hospitals and the prescribing of drugs under British Pharmacopœia names have been endorsed by the Council.

The Pharmacy Board of Victoria was informed that Council supported the proposal that morphine should be available for use, with adequate safeguards, by trained ambulance personnel.

Two cases of importance were dealt with by the Ethics Subcommittee and, acting on its reports, Council, in one case, advised a member to exercise more care in submitting accounts for services rendered to injured "workers", and in the other, censured a member for undertaking the treatment of a patient already under the care of a colleague.

As repeated instances of members giving public lectures on medical subjects without prior permission, broadcasting and granting interviews to newspaper reporters, and also

many variations from the permitted forms of advertising regarding commencement of practice, *et cetera*, had been brought to the attention of Council, a general circular quoting relevant rules of the Branch was issued to members.

As many members of the Branch do not personally know candidates for election to Council, it has been decided that in future years short biographical details concerning the candidates will be circulated with the ballot paper.

The late Mr. Augustus Wolskel made provision in his will for a substantial sum of money to be set aside "to be applied in or towards the education . . . . of the working section of the community in Victoria . . . . in preventive medicine with special regard to food and healthy methods of living", and the Trustees of the Medical Society of Victoria have undertaken to carry out his wishes.

During the year, number 388 Albert Street, East Melbourne, adjoining two properties already owned by the Medical Society of Victoria, was purchased with the aid of an interest-free loan from the British Medical Insurance Company, Proprietary, Limited. The purchase of the third property gives a total frontage of 66 feet to Albert Street on which it is hoped in future years a building worthy of the association will be erected.

During the year Council determined that the Section of Preventive Medicine had lapsed owing to non-compliance with the Rules, and later, on the requisition of several members, the section was reestablished.

Preliminary plans have been made for the holding of the eighth session of the Australasian Medical Congress (British Medical Association), of which Sir John Newman-Morris will be president, in Melbourne, from August 22 to 30, 1952, and in that year will also be celebrated the centenary of the Medical Society of Victoria.

In the above, no reference has been made to the very large volume of business arising from the activities of the Federal Council which was considered by the Branch Council, the ultimate decisions concerning which will be found in the reports of the meetings of the Federal Council. In addition, a great many matters were dealt with by the subcommittees and the executive of the Branch Council.

The Library of the Medical Society of Victoria.

Two thousand four hundred and eighty-four books and medical journals were borrowed during the year and 172 books added to the library. The second edition of the catalogue, issued in 1950, has proved of value, particularly to country members, and a supplement to this catalogue is now being compiled. Additions and improvements to the library include a magazine stand for current medical journals and the installation of a Rectophot Rapid Reproducer by which any article can be copied and forwarded to any address (the copy becoming the property of the purchaser), at a cost to members of 1s. 6d. a page for the first copy and 9d. a page for each further copy. This expedites service to members, saves postage and retains books in the library. A subscription has been arranged to a new journal; *Scientica Medica Italica*. *Archives of Surgery* and *American Heart Journal* have been discontinued as these are available at other libraries.

The following are thanked for gifts of books and medical journals: The Editor of THE MEDICAL JOURNAL OF AUSTRALIA, Dr. Keith Colquhoun, Dr. M. Curzon, Dr. K. D. Fairley, Dr. C. H. Fitts, Dr. H. I. Holmes, Dr. G. Kaye, Dr. M. Morton, Dr. N. T. Schafer, Dr. G. E. M. Scott, Dr. A. E. Rowden White, Miss M. M. Paton, Miss H. A. Steven, the estate of the late Dr. W. H. Fitchett, and Mr. G. C. Hawker, Dr. M. Kelly, Dr. M. Curzon and Dr. F. J. Williams for gifts other than books. The British Medical Insurance Company has, as usual, made a substantial contribution to the library funds.

H. G. FURNELL,
Honorary Librarian.

Federal Council.

The Federal Council met in Melbourne in January and in Brisbane in May, and held a special meeting in Sydney in September. Full reports of the proceedings of the meetings were published in THE MEDICAL JOURNAL OF AUSTRALIA of February 18, July 8 and November 4, respectively.

Reports of Subdivisions.

Metropolitan.

Melbourne Central.—Council Representatives: Dr. L. H. Ball, Dr. M. L. Powell and Dr. T. G. Swinburne. Office-bearers: President, Dr. A. E. Coates; Honorary Secretary, Dr. T. G. Swinburne.

No meetings of the Central Subdivision were held during the year.

T. G. SWINBURNE,
Honorary Secretary.

Eastern Suburban.—Council Representative: Dr. R. F. Watson. Office-bearers: President, Dr. H. G. Judkins; Honorary Secretary, Dr. H. J. Hosking.

At a meeting held at Saint George's Hospital, Kew, on March 24, the question of a new scale of fees was discussed. It was unanimously decided by the large number of members present to increase the minimum fees to correspond with the new scale being introduced in other subdivisions.

Dr. C. H. Dickson attended the meeting and spoke on the proposed national health scheme.

H. J. HOSKING,
Honorary Secretary.

South Central Suburban.—Council Representative: Dr. J. G. Johnson. Office-bearers: President, Dr. R. D. Aitchison; Secretary, Dr. J. Gavin Johnson.

A meeting of the subdivision was held on March 29 for the purpose of discussing a proposed increase of fees to 12s. 6d. for a visit to the surgery, 15s. for a visit to the home, and £1 1s. for night and week-end visits. After the discussion, the Medical Secretary of the Branch gave a resume of the Earle Page national health scheme.

J. GAVIN JOHNSON,
Honorary Secretary.

Western Suburban.—Council Representative: Dr. M. H. Box. Office-bearers: President, Dr. M. H. Box; Honorary Secretary, Dr. D. D. Coutts.

A meeting of the subdivision was held at the Mechanics Institute, Footscray, on March 9, 1950, to discuss medical fees, and it was agreed to increase fees and to adopt the scale of fees in operation in the South-Eastern Subdivision, 12s. 6d. in the surgery, 15s. in the home, and £1 1s. at night time, week-ends and on public holidays.

Dr. John Hayward gave a clinical lecture at the Williamstown and District General Hospital, his subject being "The Present Scope of Thoracic Surgery".

D. D. COUTTS,
Honorary Secretary.

Country.

Geelong.—Council Representative: Dr. D. Carter. Substitute representatives: Dr. N. Laidlaw, Dr. D. A. Kidd. Office-bearers: President, Dr. D. Carter; Vice-President, Dr. D. Reid; Honorary Treasurer, Dr. E. Fargie; Honorary Secretary, Dr. M. W. Morris.

Four general meetings, with an average attendance of 26, and two special meetings were held during the year, and a successful post-graduate week-end and dinner also took place.

Recently the consulting fees for Geelong Subdivision were increased to 12s. 6d for consultations at surgery, 15s. for consultations at home, and £1 1s. for night, week-end and holiday calls.

M. W. MORRIS,
Honorary Secretary.

Gippsland.—Council Representative: Dr. A. B. Hewitt. Substitute Representatives: Dr. T. O. Beatty, Dr. D. I. Fitzpatrick. Office-bearers: President, Dr. J. M. Andrew; Honorary Secretary, Dr. D. I. Fitzpatrick.

On November 5, 1949, the Gippsland Subdivision held a meeting at Yallourn and Dr. Robert Southby lectured on "Vomiting in the First Ten Years of Life".

April 1-2 was post-graduate week-end at Sale, when the lecturers were Dr. W. King, Dr. S. Reid, Dr. Bruce Anderson and Dr. B. K. Rank. Fifteen members attended and five apologized.

On August 26 the Victorian Branch met at Sale. Local members demonstrated cases and enjoyed the visit of city colleagues. Dr. J. S. Peters lectured on "Urological Problems in General Practice".

D. I. FITZPATRICK,
Honorary Secretary.

South West.—Council Representative: Dr. L. J. Westacott. Substitute Representatives: Dr. W. R. Angus, Dr. C. B. Berryman. Office-bearers: President, Dr. Henry Maling; Honorary Secretary, Dr. W. R. Angus; Assistant Secretary, Dr. B. D. Vaughan.

In November, 1949, a week-end meeting at Hamilton was arranged by the Melbourne Permanent Post-Graduate Committee, when Dr. I. M. Wartzki lectured on "Modern Dermatology", Dr. J. H. Bolton on "Problems in Anæmia in General Practice", Dr. J. I. Hayward on "The Present Scope of Thoracic Surgery" and Dr. J. D. Hicks on "Recent Advances in Pathology". The playing of a wire recording of a lecture by Professor Crewe on eugenics was greatly appreciated.

In February a meeting was held at Warrnambool and was well attended. Dr. R. S. Hooper gave a lecture, illustrated by lantern slides, on "Head Injuries"; interesting cases were presented and followed by discussions. The Mayor of Warrnambool (Councillor J. B. Dwyer) tendered a civic reception to the president, Dr. R. Southby, and members of the Branch.

At Camperdown, in May, Dr. Howard Williams spoke on "Medical Emergencies in the Newly Born". At this meeting it was decided to establish a subdivision library at Warrnambool, and the British Medical Insurance Company made a much appreciated gift of £25 to the new library.

In August a meeting was held at Hamilton, and members from the neighbouring towns and Colac and Mount Gambier were invited.

Dr. A. R. Wakefield gave a lecture on "Tendon Injuries in the Hand", with film illustration.

Members who died during the year were Dr. K. F. O'Donnell, Dr. E. G. Bannon and Dr. J. H. Henderson, all of whom had given valuable service to the subdivision and whose deaths are recorded with regret.

W. R. ANGUS,
Honorary Secretary.

Bendigo.—Council Representative: Dr. P. Goodman. Substitute Representatives: Dr. C. Stanley and Dr. A. Lincoln. Office-bearers: President, Dr. J. L. W. Sharland; Vice-President, Dr. A. Lincoln; Honorary Treasurer, Dr. H. C. Purton; Honorary Secretary, Dr. W. Rosenthal.

The year has been outstanding for the revival of interest of the subdivision in clinical activities. Clinical meetings have been held each month at the Bendigo Base Hospital, and talks given by members on medical, surgical, obstetrical and ear, nose and throat subjects. On two occasions interest has been enhanced by the showing of full-length sound films.

A post-graduate week-end was most successful, lectures being delivered by Dr. L. Hurley, Dr. L. W. Gleadell, Dr. R. Andrew and Dr. R. Strang to a large and representative audience.

The interest of the subdivision in the coming year will be centred on the holding of a combined medical and dental congress in Bendigo on April 26 to 29, during the Bendigo centenary celebrations.

W. ROSENTHAL,
Honorary Secretary.

Ballarat.—Council Representative: Dr. W. A. Sloss. Substitute Representatives: Dr. M. H. Robinson, Dr. C. E. Richardson. Office-bearers: President, Dr. B. A. Baker; Vice-President, Dr. E. R. G. Sheil; Honorary Treasurer, Dr. W. A. Spring; Honorary Secretary, Dr. C. E. Richardson.

At the annual meeting in September, 1949, Dr. J. McLean spoke on "Blood Diseases and Transfusions".

A post-graduate course commenced in Ballarat on February 18, 1950, and was well attended.

During the year the subdivision library was catalogued and brought up to date. Dr. Davidson resigned his position as librarian and Dr. Anderson was appointed in his place.

On May 4 the resignation of Dr. C. E. Richardson from the position of Honorary Secretary was accepted with regret. At the next annual meeting in September, 1950, a presentation was made to express the appreciation and gratitude of this subdivision for Dr. Richardson's fine service over the last fifteen years.

J. P. L. GRIFFITHS,
Honorary Secretary.

North West.—Council Representative: Dr. J. J. Searby. Substitute Representatives: Dr. B. Hutton-Jones, Dr. F. C. de Crespigny. Office-bearers: President, Dr. W. J. Flanagan; Honorary Secretary, Dr. A. Bridge.

Three meetings were held during the year. Dr. J. B. Colquhoun delivered an address on "Congenital Dislocation of the Hip".

A clinical meeting was held at the Wimmera Base Hospital and several interesting cases were presented.

B. HUTTON-JONES,
Honorary Secretary.

Reports of Sections.

Clinical Pathology.—Chairman, Dr. H. F. Bettinger; Honorary Secretary, Dr. J. W. Perry; Committee, Dr. H. J. Gardner, Dr. A. W. Pound, Dr. J. D. Hicks; Dr. G. Harkness was co-opted as Treasurer; during Dr. Perry's absence in England Dr. Hicks was appointed Honorary Secretary.

Four general meetings and several committee meetings were held during the year. At the annual meeting Dr. Hilda Gardner spoke on "Some Impressions of Clinical Pathology Abroad". In association with the radiological section, the pathology of gastritis was discussed by Dr. R. Motteram and Miss Wieden, Dr. Casey presenting radiological aspects. Two meetings of the section were held when cases of hæmatological interest were presented by members.

J. D. HICKS,
Honorary Secretary.

Radiology.—President, Dr. Alan Mackay; Honorary Treasurer, Dr. Peter Davis; Honorary Secretary, Dr. Gwynne Villiers.

Monthly meetings, both business and clinical, have been held on the fourth Tuesday, and a combined meeting of the radiological and pathological sections was held in June.

Many members have been absent in London attending the Radiological Congress. In December, 1949, the College of Radiologists (Aust. and N.Z.) was inaugurated in Sydney, and combined meetings of the Victorian Branch of the college and the radiological section have been held.

Under the auspices of the college, an examination for F.F.R. is to be held in Melbourne in May, 1951, when examiners from England will visit Australia.

GWYNNE VILLERS,
Honorary Secretary.

Ophthalmology.—(Victorian Section of the Ophthalmological Society of Australia). Office-bearers: President, Dr. R. Hyett; Honorary Secretary, Dr. J. McBride White.

Five meetings have been held this year and were well attended. Interesting talks were given by Dr. T. Travers and Dr. G. Sutherland on ophthalmology in America and Spain respectively.

J. MCBRIDE WHITE,
Honorary Secretary.

Ear, Nose and Throat.—Office-bearers: President, Dr. Hedley Summons; Vice-President, Dr. Walter Williams; Honorary Treasurer, Dr. Frank Shanasy; Honorary Secretary, Dr. Rory Willis; Committee, Dr. Heyworth Watson, Dr. Rex Blaubaum, Dr. Denis O'Brien, Dr. Roy Stevens and Dr. Clive Pyman.

The annual meeting of the section was held at the Eye and Ear Hospital on March 27, 1950, when clinical cases were shown and office-bearers elected.

A special meeting was held at the Eye and Ear Hospital on August 11, 1950, to meet Professor and Mrs. Ewing, of Manchester, who were visiting all the Australian States as the guests of the Commonwealth Education Department. Problems relating to the management of deafened children were discussed.

A third meeting was held on August 29, 1950, at the Eye and Ear Hospital for the showing and discussion of clinical cases.

R. WILLIS,
Honorary Secretary.

On behalf of the Branch Council,
ROBERT SOUTHBY, President.
LEONARD H. BALL, Honorary Secretary.
C. H. DICKSON, Medical Secretary.

The Council has much pleasure in recording its deep appreciation of the willing cooperation of the entire office staff who have cheerfully coped with an enormous volume of work throughout the year. The Medical Secretary has carried out his duties in his usual efficient manner and the Council expresses its deepest thanks to him.

ROBERT SOUTHBY,
President.

Addendum.

The following reports are published on behalf of:

The Melbourne Permanent Post-Graduate Committee.

During the year the usual courses were arranged including those for higher degree and diplomas, as well as the refresher courses in obstetrics and gynæcology.

As the numbers entering for the general refresher courses had been decreasing for several years past, an alteration in the type of course has been made. In 1949 and 1950 a clinical post-graduate week was arranged by one of the general and one of the special hospitals, in 1949 by the Alfred and Women's Hospitals, in 1950 by Saint Vincent's and the Children's Hospitals. The attendances were rather disappointing in view of the preparations carried out by hospital managements and medical staffs. There is undoubtedly great difficulty involved for those desiring to attend such courses because of the scarcity of *locum tenentes*.

The following figures for 1949 indicate the extent to which the facilities of the committee are used:

Numbers attending courses—379 (including 23 from other States and overseas). Contacts made with doctors apart from those who attended courses—150, totalling 529. The number of set lectures and demonstrations provided was 410. Attendances in 1950 should show an increase on the above.

At the suggestion of the Australian Post-Graduate Federation in Medicine, the committee conducted a course in psychiatry. This was arranged in conjunction with the Australasian Association of Psychiatrists and took the form of an intensive series of lectures, discussions and practical sessions extending over four weeks in September and October, 1950. The course was attended by 13 full-time and 13 part-time candidates, including several from other States and New Zealand. It is noteworthy that in the cases of Queensland, Tasmania and Victoria, the fees of medical officers attending were paid by the Department of Mental Hygiene of the State concerned. Comments of those who took part were very encouraging, and the committee wishes to express appreciation to the Association of Psychiatrists and to those of its members who took such a large share in the organizing and teaching.

Week-end country courses again constituted a large and important part of the committee's activities. These are always well patronized and it is gratifying to note the warm thanks accorded to visiting lecturers by those attending. The committee again takes the opportunity of expressing its gratitude to those practitioners who contribute so much to this form of post-graduate teaching.

The committee continues to assist a considerable number of those proceeding overseas by its contacts with the British Post-Graduate Medical Federation and other organizations. Some 37 have taken advantage of these facilities.

The committee has been fortunate, as a member of the Australian Post-Graduate Federation in Medicine, in participating in the visits of several outstanding medical authorities over the period under review. Dr. Donald Hunter, Physician to the London Hospital, and recently Censor-in-Chief of the Royal College of Physicians, London, visited Victoria in August, thanks to the cooperation of the McIlrath Fund and The Royal Australasian College of Physicians. He delivered two lectures and also gave demonstrations to the medical staffs and students at each of the three teaching hospitals. His vivid personality and incisive methods of teaching have left an unforgettable impression. Professor Francis Blake, Professor of Medicine, Yale University, United States of America, was the official overseas post-graduate lecturer of the Post-Graduate Federation for 1950. His lectures on such subjects as the antibiotics and cortisone were delivered to large audiences and proved an admirable contribution to our knowledge in some of the recent advances in medicine. An interesting and successful experiment was carried out during his visit in connexion with two of his lectures. With the ready cooperation of the Postmaster-General's Department, these were relayed to a medical audience at Mooroopna, the members of which were able to listen in and subsequently to discuss problems and ask questions. The lecturer was most helpful, and, by arranging for a duplicate set of slides, succeeded in effecting a faithful reproduction of his Melbourne addresses.

In July last, by arrangement with the King George V and Queen Mary Maternal and Infant Welfare Foundation of New South Wales, Professor F. J. Browne, Emeritus Professor of Obstetrics and Gynæcology in University College, London, delivered two lectures at the hall of the Royal College of Obstetricians and Gynæcologists. These lectures and two ward rounds at the Women's Hospital were made possible through the cooperation of the Victorian State Committee of the Royal College of Obstetricians and Gynæcologists.

Through the courtesy of the Royal Australasian College of Surgeons, Dr. O. T. Clagett and Dr. Lee Eaton, of the staff of the Mayo Clinic, lectured to Melbourne audiences in May last. Dr. Clagett took as his subject "The Suppurative Diseases of the Lung", and Dr. Lee Eaton spoke on "Myasthenia Gravis, Its Diagnosis and Management". These visitors from the United States of America gave delightful and instructive lectures and we are greatly indebted to them.

Dr. Arthur Grace, Professor of Dermatology and Syphilology at Long Island College of Medicine, lectured on "Virus Diseases of the Skin". He also took part in discussions with members of the Association of Dermatologists and Syphilologists at a meeting at the Royal Melbourne Hospital when a special afternoon session was arranged.

The committee regrets that Sir John Newman-Morris finds himself unable to continue as a member of the committee, and has accepted his resignation with much reluctance. Sir John has been an active member of the committee for approximately twenty-five years, and has done a tremendous amount of work for it in many ways. Its place in the medical world of Melbourne owes much to him, especially in the earlier years of its existence, when his activities in connexion with its constitution and rules helped greatly to lay its solid foundation.

W. W. S. JOHNSTON,
Director.

The British Medical Insurance Company of Victoria, Limited.

The annual report of the British Medical Insurance Company of Victoria, Limited, for the year ended April 30, 1950, states that the results of the year's operations (as disclosed in the profit and loss account) have not, in the opinion of the directors, been materially affected by any items of an abnormal character. Net profit for the year was £3036 13s., after providing £1300 for taxation. The appropriation acount shows that £844 was allocated during the year to various institutions connected with the medical profession. Up to date the company has given books to the value of £2105 and £10,275 in cash to the Medical Society of Victoria, and more than £800 to various sub-branches of the British Medical Association and other institutions connected with the medical profession. It has also taken up debentures of the Medical Society of Victoria to the value of £3750, upon which it is accepting interest at the rate of only 1% *per annum*, which, of course, saves the Medical Society of Victoria a considerable sum in interest. During the year a loan of £3150, free of interest, was made to the Medical Society of Victoria to finance a building purchase. The directors feel that members of the British Medical Association will be interested to know of the benefits that they have indirectly received through the activities of this company, and feel sure that the knowledge will strengthen the already solid support given by the profession.

J. NEWMAN-MORRIS,
Chairman.

The British Medical Agency (Victoria) Proprietary, Limited.

During the year ended June, 1950, the British Medical Agency again increased its annual turnover, and, with the abolition of the control of real estate prices, vendors of practices and houses were able to obtain higher prices for their properties. With this increase in market values younger practitioners have, in some cases, been deterred from purchasing practices, particularly if they required financial assistance, and the high prices being asked by vendors naturally restrict the field of buyers. The result has been that young graduates have been more interested in assistantships and partnerships, and the arranging of many assistantships has reduced the availability of *locum tenentes*.

To fill the vacancy on the Board of Directors created by the death of Dr. J. A. Cahill, Dr. Douglas Thomas was elected. The board now comprises Dr. Douglas Thomas, Dr. C. H. Dickson, Dr. G. S. Robinson and Major-General Kingsley Norris.

G. FEELY,
Manager and Secretary.

INSTALLATION OF THE PRESIDENT FOR 1951.

Dr. Robert Southby introduced the incoming president for 1951, Dr. Roy Watson, and installed him in the presidential chair. He reminded those present of all that Dr. Watson had done for the Branch as its honorary secretary and also as vice-president. Dr. Watson thanked the members for his election.

PRESIDENT'S ADDRESS.

Dr. Robert Southby then read the retiring president's address (see page 245). Dr. Watson thanked Dr. Southby for his address.

VOTES OF THANKS.

A vote of thanks to Dr. John Dale, Dr. M. L. Powell, Dr. L. J. Westacott and Dr J. J. Searby was carried on the motion of Sir John Newman-Morris, seconded by Sir Victor Hurley. Dr. Southby thanked the Medical Secretary and the office staff for the work that they had done throughout the year.

SCIENTIFIC.

A MEETING of the New South Wales Branch of the British Medical Association was held on October 26, 1950, at the Robert H. Todd Assembly Hall, British Medical Association House, 135 Macquarie Street, Sydney, DR. W. F. SIMMONS in the chair.

Poliomyelitis.

DR. S. G. BRADFIELD read a paper entitled: "Acute Anterior Poliomyelitis" (see page 250).

DR. W. D. STURROCK read a paper entitled: "Treatment of Anterior Poliomyelitis" (see page 252).

DR. D. G. HAMILTON spoke on the subject of diagnosis. He said that he agreed with Dr. Bradfield that diagnosis in the prodromal stage was difficult. It was not until invasion of the central nervous system produced definite signs that the diagnosis could be made readily. First, the spine sign, with neck stiffness, was the sign *par excellence*; but it was not a completely reliable sign. In a series of 250 patients admitted to hospital during the acute spinal stage, approximately 12% did not have a significant degree of spine sign. Dr. Hamilton said that in the present epidemic he had been impressed in one or two cases by finding that the absence of the spine sign was not reliable in diagnosis. If it was present, then it was significant. He had one night examined a boy who presented the spine sign, and felt sure that the patient was not suffering from meningitis; the sign had disappeared by the next morning. Therefore the spine sign might well be missed or might not be seen in cases of poliomyelitis during the acute stage, and its absence did not exclude that disease. There were three signs that one did sometimes see, and if present they were highly significant, for they suggested involvement of the nervous system. The first was mental change. A few nights previously he had examined a non-cooperative little boy, aged two years; the parents said that the child had completely changed in the last two days. He was very apprehensive, and that apprehension was a suggestive sign. Its presence, with some degree of change in the mental outlook and a dislike of being interfered with, was a suggestive sign in that stage. The second important sign was the presence of a coarse tremor in about 40% of cases in the initial stage, seen on voluntary effort. It did not indicate that paralysis was going to take place because weakness existed in muscle action; it suggested that poliomyelitis was present. The third important sign, which was a little less reliable, was the occurrence of isolated twitches, especially during sleep. Of course, many normal people occasionally twitched in that way; but twitching in a child who did not normally do it suggested some irritation of the central nervous system, and the sign was useful if considered in conjunction with other observations. Dr. Hamilton then referred to the great importance of trying to make a diagnosis in the prodromal stage. He had had two cases illustrating that point in the last month or so. A little girl, who had been ill for some days, developed mild weakness of one leg. The diagnosis was unquestionably poliomyelitis. At the same time the mother complained of slight malaise and slight fever. The father had had the same symptoms a few days before. Dr. Hamilton said that he had no doubt that three people in that family had had poliomyelitis. Such occurrences were important in the question of spreading of the epidemic. The problem he had to solve was whether he should have isolated the mother and father for the two or three weeks during which their daughter was isolated. Two cases of poliomyelitis had occurred in a boys' boarding school; how important would it be to attempt to recognize cases in the prodromal stages that were occurring too? Dr. Hamilton thought that clinicians should try to define the illness, in an effort to isolate affected people and so make some attempt to check the spread of infection from prodromal cases.

DR. R. L. STEPHEN assured Dr. Needham that at the Royal Alexandra Hospital for Children lumbar puncture was repeated after three weeks. That procedure gave some indication of which were true cases of poliomyelitis and which were not. At the hospital there were some patients who had paralysis and atypical cerebro-spinal fluid findings, and later the paralysis seemed to spread. That did not seem typical of poliomyelitis. Dr. Stephen thought that quite a number were suffering from the Guillain-Barré syndrome, not poliomyelitis. A further examination of the cerebro-spinal fluid, three weeks from the onset of the illness, would help to clear that up. The making of a diagnosis had some practical importance, since one could say that those who had the type of paralysis which continually ascended but did not end in death would almost certainly completely recover. That was important to the parents. From the orthopædic standpoint there were one or two comments to make. Dr. Sturrock had said that at the end of one week was the best time to carry out muscle testing. Dr. Stephen said that at the Royal Alexandra Hospital for Children they did not set any particular period. It had been found that the best way was to realize that they had a sick child who was irritable and had tender muscles. They did not attempt any real muscle testing until the child was comparatively well and the muscle tenderness had subsided; that took two or three weeks and sometimes longer. Dr. Stephen himself thought that a week was rather early for the child. There were practical points about testing the patients, whether children or adults. He thought that all would agree that any attempt to make a complete muscle chart in the early stages was a mistake. Children would overdo things, in an attempt to do as well as the child next door, and thus real damage might be done. It was better to test only a few muscles in the first day or two, and later on to test other muscles. Splints had to be adjusted from time to time as the various affected muscles were found to be recovering or deteriorating. Referring to the question of frames, Dr. Stephen said that there was a difference between children and adults, as Dr. Sturrock had pointed out. But it was no use taking one or other set of muscles; they had to consider the child or adult as a whole, and wonder what would happen in a year or two when the patient was walking more or less normally; was he likely to develop scoliosis? Dr. Stephen then spoke of late treatment and the question of operative orthopædics. He agreed with Dr. Sturrock that in the foot generally the question of arthrodesis as against muscle transfer was one of importance. As a rule the matter resolved itself into the performance of arthrodesis. That operation should not be performed before the child was aged ten or twelve years. Before that there was far too much cartilage in proportion to bone for the operation to be successful without great deformity of the foot later. Until the child had reached that age, appropriate splinting of various types had to be carried out. Then the question of arthrodesis could be considered. Sometimes muscle transfer was thought to be more appropriate than arthrodesis; but there again one was apt to rush in, and the question of muscles and their part in the normal limb had to be considered. Frequently one found a strong *extensor hallucis longus* pulling up the great toe, the *tibialis anterior* insertion being weak, and thought that they could be transferred; but it was forgotten that the *tibialis anterior* tendon was an invertor, and the *tibialis posterior* tendon was not looked for. It was foolish to expect the *extensor hallucis longus* to take over the work of both the other two. If the *tibialis anterior* was weak and the *tibialis posterior* strong, it was worth while transferring the *extensor hallucis longus*; but if both invertors were weak, it was only waste of time. Again, in the shoulder, it was generally found that muscle transfers were not of great use, and it was more satisfactory to perform arthrodesis, provided that the scapular rotators were strong. Dr. Stephen thought that before any arthrodesis of the shoulder was performed, the scapular muscles should be working well, and able to take over the work and so help abduction. Dr. Stephen had found that one of the most successful upper limb muscle transfers was performed when the extensors of the fingers and wrist were paralysed and the flexors were strong; if the wrist flexors were transferred to the finger extensors and the *pronator teres* to the wrist extensors, the result was very satisfactory. That was one of the few upper limb muscle transfers that would result in satisfactory function of the fingers. The *opponens pollicis* was excluded. But before any such muscle transfers were undertaken, appropriate splinting should be carried out for at least a year to afford support in the most favourable position, and to make certain

that there was no joint capsule contracture that would militate against a successful end result; and while that muscle was held in its proper position, every effort should be made at reeducation. If at the end of that time the result was not satisfactory, then muscle transfer was well worth trying.

DR. F. N. STREET said that he had one or two points to make, particularly concerning the effect of noxious influences on the outcome of paralysis. He thought it of some importance to realize that of all the poliomyelitis patients at the Royal Alexandra Hospital for Children, the vast majority came from better class homes; over 90% lived in houses rather than flats, in places where there was very little overcrowding. One came from Surry Hills and one from Redfern, but the majority were thinly spread out over all the districts of better class homes. Most of the patients seemed to have cheerful, happy-go-lucky temperaments, and to be active and energetic. They probably corresponded to Aycock's hyperpituitary type. The long-legged, active subject was the most likely to become paralysed. Referring to the effect of exercise on the outcome, Dr. Street said that Ritchie Russell had stated that exercise was of the greatest significance. Of 85 cases in which rather more than the average amount of exercise had been performed in the month prior to the onset of the illness, there was some connexion between the exercise and the paralysis, more specifically when the exercise had taken place in the last seven days. But exercise was not the precipitating factor. Dr. Street mentioned the case of three people, all of whom had done pastoral work wheat-lumping. All became ill at the same time, and two became paralysed; the most severely ill in the pre-paralytic phase finally finished up with no weakness. In another instance a small boy, aged five years, ran two miles home, arriving exhausted and terrified; he escaped with a limp which cleared up in a month. It was clear that some other mechanism than exercise *per se* was involved. Dr. Street agreed with Dr. Hamilton's remarks about temperament changes. Of 220 cases in his own experience, in 50% temperament changes had been present in the incubation stage. American authorities held that the children were well up to the time when they showed signs of poliomyelitis, but he believed that some temperament change was present; the child might be morose or irritable, cranky or quiet; he would play, and would eat well, but still there was some change in mentality. A small boy examined recently developed the encephalitic form of the disease; his parents had noticed an amazing increase in his mental capacity. He was a boy of five years, and had asked questions about the stock exchange and about various shares. Another point was that when the children were comparatively afebrile, they might still have temperament changes. Many were irritable and cranky, and were called "highly strung" when they had been placid before. Some took months before that condition settled down. Dr. Street then referred to the question of poliomyelitis in the families of patients proved to have the disease. He said he agreed with the statement that for every patient who developed paralysis there were 100 or 200 affected people in the district who never received medical attention and in whom the disease was never diagnosed. There was a kindergarten class at Randwick with 16 children; the teacher was a young woman aged twenty-two or twenty-three years. One child came to school with what seemed to be influenza; ten days to a fortnight later 11 out of the 16 children had had that "influenza" with headache. Then the teacher contracted the infection, then her sister, then her mother. But only one subject had any form of paralysis. It was worth while remembering that in a non-epidemic period in New York, examination of tonsils removed from children revealed an infectious concentration of poliomyelitis virus in more than 10% of cases, yet no child developed poliomyelitis. Experience in England had been similar. Everyone had heard about the influence of tonsillectomy. Dr. Street said that in his series of 220 cases he had found five children living in the same room and in intimate contact with children who had developed poliomyelitis; the five children had had their tonsils out, and none had developed poliomyelitis. In eight cases of appendicectomy, the operation was closely followed by the development of poliomyelitis; one child whose appendix had been removed a week previously had the non-paralytic type of the disease, and the other seven had weakness in the lower limbs, especially the right. If it was possible to argue from eight cases, the point should be raised about stopping non-essential appendicectomies during an epidemic. That was just as feasible as it was to try to stop the performance of tonsillectomy. If a child was going to contract poliomyelitis after having his tonsils out, then he would have it in a more severe form. The same applied to appendicectomy.

DR. C. C. MACKELLAR said that he supported everything that Dr. Sturrock had said. He had recently had an opportunity of seeing Dr. Seddon at the National Orthopædic Hospital, London. In that hospital patients were given exercises and a full range of movement about three weeks from the onset of the disease; any contractures, which might occur very early, would have passive manipulation regularly. Work in the pool was very impressive, and all clinicians concerned in the treatment of poliomyelitis would profit by seeing it. Even an extensively paralysed patient could walk easily and rhythmically in the pool. Patients who had been extensively paralysed for four months and were making no headway would be fitted with spinal supports, double calipers and crutches and be seen actually hard at work, practising up and down slopes and steps.

Dr. Bradfield, in reply, said he hoped that Dr. Needham would follow up his work on conditions resembling poliomyelitis, which were not really acute anterior poliomyelitis; a large proportion of cases seemed to require to be separated off from the main group. Dr. Bradfield had been interested in Dr. Hamilton's remarks; he himself had not noticed tremor or twitchings. In other epidemics nystagmus had been reported. The main signs mentioned during the meeting had been those which struck him most forcibly. Dr. Bradfield said that he had been interested in Dr. Street's remarks on noxious influences. During the present epidemic very little had been heard about pertussis vaccine; he knew of two cases in which paresis of an upper extremity had followed the injection of pertussis vaccine.

Dr. Sturrock, in reply, said that Dr. Stephen had had much experience in the early treatment of children suffering from poliomyelitis; the agreed that a week from the onset was probably too early to examine most children. Dr Sturrock also agreed with Dr. Stephen's remarks about arthrodesis of the foot; it should not be carried out before the age of twelve or fourteen years, though some surgeons in England performed it much earlier. They held that if the surgeon was very careful, the foot grew normally. It was a moot point; Dr. Sturrock himself would leave it to the age suggested by Dr Stephen.

Dr. Simmons, from the chair, said that those present were indebted to Dr. Bradfield and Dr. Sturrock for their able presentation of the case. As a general practitioner, he was particularly interested in poliomyelitis. He had learnt a lot from both papers and from the interesting comments of Dr. Needham, Dr. Street and the other physicians. One thing had struck him as lacking in Sydney and New South Wales. In 1935 at Melbourne he had been impressed by the work done by Dr. Douglas Galbraith and the Frankston branch of the Children's Hospital, Melbourne; there the pool method of therapy was followed up. What had been done in New South Wales to copy Frankston? Had anything been done? Was there any similar institution? There should be a place like it. It was now fifteen years later; what were the orthopædic surgeons and physicians and consultative committees doing? Although a lot of money was probably being spent on various investigations into the causes of poliomyelitis, they should do something practical. Dr. Simmons hoped that some enthusiastic orthopædic surgeon might find a benefactor who would be pleased to give New South Wales something at least equalling Frankston.

A MEETING of the Victorian Branch of the British Medical Association was held at Ballarat on Saturday, November 25, 1950, Dr. Robert Southby, the President, in the chair. The meeting in the afternoon took the form of a series of clinical demonstrations by members of the honorary medical and surgical staffs of the Ballarat Base Hospital.

In the evening Dr. Leslie Hurley read a paper entitled "Some Problems in General Practice" (see page 254).

Congenital Cardiac Abnormality.

DR. C. E. RICHARDSON showed a girl, aged ten years, with nothing of importance in her past or family history; she was the second child of a family of three. There was no history of illness during her mother's pregnancy, but for the last two years the child had been off her food and had become thin and peevish. On examination the child was obviously thin and underweight for her age. The findings on physical examination were normal except for the heart; a thrill was palpable in the second left intercostal space and a rough, loud, continuous and machinery murmur was audible in the same area. Investigation showed a normal blood count; the X-ray appearance of the chest was reported as normal; an electrocardiogram showed right axis deviation.

Dr. Richardson presented the patient as suffering from patent *ductus arteriosus*, which he believed should come to operation.

DR. L. HURLEY agreed with the diagnosis. He thought that the high pulse pressure and the absence of cyanosis were important. With regard to the right axis deviation in the electrocardiogram, he felt that the investigation should be repeated. Screening examination for hilar dance would be of interest. Finally, Dr. Hurley felt that the patient should be referred to the surgeon if no complicating factors were picked up by the investigation suggested.

DR. G. PENINGTON supported Dr. Hurley. He pointed out that the child was underdeveloped and the thrill and murmur were classical. He felt that the child should therefore be subjected to operation and that the right axis deviation in the electrocardiogram should be disregarded.

DR. H. G. HILLER thought that investigation with vector chest leads should be carried out to help in determining whether the axis deviation was due to ventricular hypertrophy or whether in fact it might be due only to some slight variation in the axis of the heart of extracardiac causation. He pointed out that as it stood, the electrocardiogram was not incompatible with the diagnosis.

DR. R. SOUTHBY considered the stunting important and the risk of subacute bacterial endocarditis one of the outstanding indications for surgery.

A Case for Diagnosis.

Dr. Richardson then showed a male baby, aged eighteen months, the fifth child of parents who were first cousins. There was a family history of a nephew on the maternal side exhibiting the same characteristics as the baby under discussion. The three other children in the family were normal, and the patient's development had been normal up to the age of six months. The mother had then noticed that the child was difficult to handle, because he seemed so soft and would almost slip through her fingers. He had never been able to sit up by himself, but he now could sit up if helped. He was unable to crawl, but could shuffle along on his buttocks. Findings on examination of the patient were normal, except for the extremities. The skin and subcutaneous tissues of his extremities appeared to have a peculiar atonic feel, the joints being very freely mobile and the muscles extremely flaccid. Flexion and extension, especially of the wrist joints, could be carried out to an extreme degree and that also applied to the ankle joints. Investigation had shown late appearances of the various epiphyseal centres, and reports of blood examination had shown a blood calcium level of 11·1 milligrammes *per centum* and a blood phosphate level of 4·0 milligrammes *per centum*. The results of general blood examination were within normal limits, and the Wassermann reaction was absent. Dr. Richardson presented the patient for discussion and diagnosis.

DR. R. SOUTHBY stressed the abnormal extremities, the retarded mental progress and the peculiar shape of the skull and nostrils. He wondered whether the patient could have an atypical form of gargoylism. On the other hand, the laxity and hypotonicity of the muscles and the squatting position adopted would suggest mongolism. Dr. Southby felt that variants of those conditions did exist, and that the patient's condition was probably an example of such a variant.

Salmonella Infection.

DR. B. A. BAKER presented a man, aged thirty-eight years, who had been admitted to hospital two months previously with a diagnosis of rheumatic fever. At that time his history went back for three weeks, over which period he complained that he had had the "flu" with fever, headache, generalized aches and pains, cough and coryza. Three days before his admission to hospital he had complained of pain across the chest, and about that time an irritable rash appeared on his arms and legs. His bowels had been constipated for two days. On admission to hospital the patient presented the picture of acute rheumatic fever with effusion in the right ankle joint and muscle pains in both lower limbs. There was also a dusky papular rash over the abdominal wall. He was given sodium salicylate as part of the treatment for rheumatic fever, and penicillin was added because of inflammation of both tonsils. There appeared to be no response to that treatment, and muscular pains continued. It was then decided to investigate him more fully, and a lumbar puncture, blood examination, blood culture and urine examination and culture, X-ray examination of the chest and agglutination tests were carried out. The relevant findings were that on the patient's admission to hospital he had a white cell count of 13,000 per cubic millimetre, which climbed within a week to 27,000 per cubic millimetre; an absolute neutrophile cell leucocytosis was present. The cerebro-spinal fluid was normal. From the urine was grown *Staphylococcus aureus* and *Proteus vulgaris*. The result of blood culture was negative, and the agglutination tests showed a non-specific Salmonella reaction in high titre to 1:280. While the result of the investigations was being awaited, penicillin had been administered in large doses and combined with streptomycin. There then appeared to be a specific response, but the temperature again rose and penicillin therapy was discontinued, although streptomycin administration was kept up for another week.

Dr. Baker presented the patient as suffering from Salmonella infection, which had first presented as pyrexia of unknown origin with symptoms of respiratory tract infection and rheumatic joint lesions. He felt that the agglutination tests, which had been repeated and had again yielded positive results, established the diagnosis, and he asked those present at the meeting whether they considered that "Chloromycetin" should be used.

DR. G. PENINGTON felt that it was of importance to find the causative organism and to ascertain whether it was sensitive to any chemotherapeutic agent. As a rule the response of the Salmonella organisms to "Chloromycetin" was not as good as that of *Bacillus typhosus*. Therefore, although the drug should not be denied, he felt that it should not be continued unless a prompt response to it was obtained. A cholecystogram might be worth carrying out. Dr. Penington considered that the prognosis was good, although it might be some time before the patient had fully recovered.

DR. L. HURLEY considered that "Chloromycetin" should be used. He agreed that typhoid fever responded best, but some response might be expected in the case under discussion. He also suggested the use of the sulphonamide drugs, as some of the Salmonella organisms responded slightly to those.

DR. B. ROBINSON mentioned that recently Professor Francis Blake had stated that a two-week period was necessary in the treatment of typhoid fever with "Chloromycetin". Dr. Robinson felt that it might be necessary to use the same length of treatment in the case under discussion.

DR. R. SOUTHBY explained how the present over-use of the rarer chemotherapeutic agents had resulted in the necessity of forming State committees for the control of those drugs.

(To be continued.)

Correspondence.

THE COMMONWEALTH JUBILEE NUMBER.

SIR: Having just finished reading the Jubilee issue of THE MEDICAL JOURNAL OF AUSTRALIA, I must offer my congratulations, both on its "set-up" and the articles therein contained. It was certainly a worthy effort on behalf of the profession to commemorate this year of Jubilee.

As a general practitioner of some years' standing, there was much I could find in agreement in the articles by Sir Charles Blackburn and Dr. Leigh Cook. After reading the journal, I am more convinced than ever, that the curriculum at the medical school of the University of Sydney needs overhauling and pruning. As a large proportion of medical students (given at one place in the journal as that of 80%) enter general practice, and as all those who intend to specialize will in any case, have to do post-graduate courses, it is obvious that the pass course should be designed for general practitioners, not for specialists.

Yours, etc.,
K. J. B. DAVIS.

Corner of Cook and Moore Park Roads,
Centennial Park,
January 27, 1951.

ELECTROCONVULSIVE THERAPY AND SCHIZOPHRENIA.

SIR: Doctor A. S. Ellis is to be congratulated on the confidence with which he expresses his views. Nevertheless I, and no doubt many members of the profession who are not psychiatrists, would be happier for some understanding of what Dr. Ellis means by "early schizophrenia"—that is what schizophrenic symptoms he regards as likely to be aggravated by convulsion therapy. Does he regard con-

vulsion therapy and insulin-coma as incompatible and mutually exclusive treatments? Has he never seen a patient with schizophrenic symptoms of recent onset improve with convulsion therapy? Is he under the delusion that psychiatrists offer convulsion, insulin-coma, leucotomy or any other treatments as a certain cure for mental disorders?

Dr. Ellis's letter is likely to do a great deal of harm and I invite him to amplify his statements.

Yours, etc.,
W. S. DAWSON.

British Medical Association House,
135 Macquarie Street,
Sydney,
January 26, 1951.

SIR: I agree with the letter of Dr. A. S. Ellis, published in THE MEDICAL JOURNAL OF AUSTRALIA of January 27, 1951, and would refer you to an article in the *British Medical Journal* of January 21, 1950, commenting on investigations made by Dr. Rees. It is the opinion of the majority of the psychiatrists who have worked both with insulin and with electroconvulsive therapy that insulin shock therapy is the treatment which is more lasting and with which more patients improve. Dr. Rees states that, if treatment is given early enough, 76% of patients should have a full remission.

Electroconvulsive therapy tends to obscure symptoms and to give a false sense of security, and if the patient does relapse, it is much harder to treat them if they have already had a course of electroconvulsive therapy.

I should like to point out that if a patient does not seem to make satisfactory progress on insulin alone, electroconvulsive therapy convulsions can be given as additional treatment at the same time as insulin injections, but in my opinion electroconvulsive therapy alone should not be used, except, perhaps, one or two shocks to make a patient more manageable and to prevent them injuring themselves or others.

Yours, etc.,
JOHN K. ADEY.

Receiving House and Mental Hospital,
Royal Park,
Victoria,
January 31, 1951.

BLOOD TRANSFUSION NEURITIS.

SIR: With the increasingly common use of intravenous infusion as a method of treatment, changes of fashion occur in the choice of veins selected for this purpose. The antecubital veins yielded long since to the "malleolar" vein at the ankle, and this in turn to the veins of the forearm. A favourite site nowadays for giving blood or saline solution to those patients in need of it is the vein which runs along the lateral border of the forearm, starting at the anatomical snuff-box. This is the commencement of the cephalic vein at the radial end of the dorsal venous arch of the hand, and it has many advantages to commend it. Its position is relatively constant even if it cannot be seen; the cannula lies snugly alongside the wrist, and if it is properly secured the patient can use the hand freely or with little restraint while the infusion proceeds—often for days on end.

However, there is one small disadvantage which I feel should be brought to notice—namely, that this vein at its distal end is closely accompanied by the superficial branch of the radial nerve or its main termination. This is the sensory supply to the back of the hand over the web of the thumb and to the back of the thumb and the index finger. Unless care is taken to identify and separate this nerve, it is almost sure to be lifted up with the vein by forceps or aneurysm needle, especially at the wrist level where the two are close companions and the nerve must almost be "wiped" away from the vein.

In the last six months I have had three patients suffering from numbness or paræsthesia over this sensory area—an annoying feeling of "pins and needles" along the back of the thumb and index finger. In each case there was the tell-tale scar of a small transfusion incision over the vein (and nerve), to which the lesion was plainly attributable. Presumably the nerve had been caught by the catgut ligature around the vein, or it may have been cut when the vein was incised. I learn of another such case on casual inquiry and I should guess it is not uncommon.

Fortunately none of these patients (who had all recovered from serious surgical conditions) bore any grievance about this minor disability. Plainly, however, it is an unnecessary annoyance which should not occur, and I report these cases in the hope that a reminder of this small point of anatomy will serve to reduce the incidence of this "complication" of blood transfusion.

Yours, etc.,
ROBERT S. LAWSON.

85 Spring Street,
Melbourne, C.1,
Victoria,
January 31, 1951.

CASES FOR DIAGNOSIS.

SIR: I would like to submit the following cases for diagnosis, or perhaps a new disease has appeared.

On 20th January Mrs. C. J. consulted me for a sore throat, headache and pain in the back. Her temperature was normal and her pulse rate was 96. The left tonsil was reddened, and a little enlarged. The right eyelids were swollen and conjunctiva slightly inflamed.

On 22nd January both eyes were very puffed and could not be properly opened, and headache worse.

I put her on sulphadiazine tablets and she was well on 25th January. But on that date her husband developed the same symptoms and received the same treatment. He recovered in two days, and on 27th January her elderly father followed suit and also recovered in two days. These people live on a farm at Kangaroo Valley, twelve miles from Nowra.

On 2nd February I was called to Bomaderry, two miles from Nowra, to see Mrs A. R. She had a swollen face and œdematous right eyelids. Her temperature was normal, and her pulse rate 120; she had sore throat and backache. The same treatment was effective.

Yesterday evening my partner, Dr. Morrison, asked me to see a young married woman from the Naval centre, with the same symptoms. Also he tells me he saw a young man from Bomaderry, similarly affected, this morning.

The striking thing about these patients was the œdema of the eyelids on one side only—followed by œdema on the other side only in the first patient, who did not receive sulphadiazine for two days.

Yours, etc.,
F. A. RODWAY.

Nowra,
New South Wales,
February 4, 1951.

Post-Graduate Work.

THE MELBOURNE PERMANENT POST-GRADUATE COMMITTEE.

PROGRAMME FOR MARCH, 1951.

Classes for Part I of Higher Degrees and Diplomas.

PHYSIOLOGY and anatomy classes which have commenced in February will continue, and pathology lectures will commence on March 12. The classes will continue on Monday and Wednesday afternoons. Physics lectures for Part I, D.D.R. and D.T.R.E., commencing on March 1, at 4 p.m., will be conducted each Thursday in the Commonwealth X-ray and Radium Laboratory.

Courses for M.D. Part II and M.R.A.C.P.

Neurology demonstrations, under the direction of Dr. E. Graeme Robertson, will be held at 4.30 p.m. on the following dates: February 27, March 6 and 13, by Dr. L. B. Cox, at the Alfred Hospital; March 1, 8 and 15, by Dr. Robertson, at the Royal Melbourne Hospital.

Country Courses.

Mooroopna.

The following is the programme of a course to be held at Mooroopna on March 3 and 4, 1951:

Saturday, 2.30 p.m., Dr. H. L. McLorinan, "The Management of Infectious Diseases"; 8 p.m., Dr. R. G. Worcester, "Abnormal Uterine Bleeding".

Sunday, 10 a.m., Dr. Maurice V. Clarke, "Recent Advances in Cardiology"; 2 p.m., Dr. F. Connaughton, "Common Surgical Conditions of the Rectum and Anal Canal".

The fee for this course is £2 2s., or 10s. 6d. per demonstration, and enrolments should be made with the Secretary of the Subdivision, Dr. B. R. Schloeffel, Maud Street, Shepparton (telephone 67).

Flinders Naval Depot.

At Flinders Naval Depot on March 14, 1951, at 2.30 p.m., Dr. Keith Bottomley will lecture on "Functional Heart Disease", by arrangement with the Royal Australian Navy.

Geelong.

The following is the programme of a course to be held at Geelong on March 31, 1951:

2 p.m., Dr. R. Hooper, "Sympathectomy in the Treatment of Vascular Disease"; Dr. Eric Clarke, "Suppurative Conditions of the Lungs"; 8 p.m., Dr. Bruce Anderson, "Obstetrical Emergencies Following Delivery".

The fee for the course is £1 11s. 6d., or 10s. 6d. per demonstration. Enrolments should be made with the Secretary of the Geelong Subdivision, Dr. W. M. Morris, "Belleville", 348 Ryrie Street, Geelong (telephone: 4567).

Overseas Lecturer.

Professor Matthew Stewart, recently Professor of Pathology in the University of Leeds, will visit Melbourne during March and April, 1951. He will lecture at 8.15 p.m. in the Medical Society Hall, 426 Albert Street, East Melbourne, on the following dates:

Thursday, March 15, "Chronic Peptic Ulceration with Special Reference to Ulcer-Cancer".

Tuesday, March 20, "Silicosis and Asbestosis".

Professor Stewart will also visit University departments and give post-mortem demonstrations.

DATES OF COURSES FOR PART II OF THE DIPLOMAS.

If the demand warrants, a course suitable for candidates for Part II of each of the following medical diplomas will commence at the times stated below and will aim at finishing before the examination following: D.O., commencing early in June; D.D.R., commencing in April; D.P.M., commencing in June; D.G.O., commencing at the end of June; D.L.O., commencing in July. Those interested in attending should communicate with the Post-Graduate Committee as soon as possible, so that early arrangements can be made with lecturers.

ENROLMENTS.

Enrolments for all courses in the metropolitan area should be made with the Secretary of the Melbourne Permanent Post-Graduate Committee, 394 Albert Street, East Melbourne (telephone: JM 1547 or JM 1548). Fees are payable in advance.

THE POST-GRADUATE COMMITTEE IN MEDICINE IN THE UNIVERSITY OF SYDNEY.

OVERSEAS LECTURER.

THE Post-Graduate Committee in Medicine in the University of Sydney announces that Professor R. R. Macintosh, F.R.C.S, D.A., Nuffield Professor of Anæsthetics, University of Oxford, and Consultant Anæsthetist to the Royal Air Force, will give a lecture on "Anæsthetics Used in Research Resuscitation" on Thursday, February 22, 1951, at 8.30 p.m., at the Stawell Hall, 145 Macquarie Street, Sydney.

All medical practitioners are invited to attend.

GENERAL REVISION COURSE.

THE Post-Graduate Committee in Medicine in the University of Sydney announces that the annual general revision course will begin one week after the Easter holidays, on April 2, 1951, and will cover a period of two weeks.

A special feature of the course will be the presence of the well-known general practitioner, Dr. William Pickles, of Yorkshire, England, who will take part in a panel discussion on "Problems in General Practice", and will deliver three lectures, two on "Epidemiology in Country Practice" and one on "Research in General Practice".

Also included in the programme will be panel discussions and seminars on such subjects as psychosomatic medicine, poliomyelitis, jaundice, thyreoid disease, and the use and abuse of Cæsarean section.

The fee for attendance will be £6 6s., and a programme will be available shortly. Those wishing to enrol are requested to communicate at an early date with the Course Secretary, the Post-Graduate Committee in Medicine, 131 Macquarie Street, Sydney. Telephones: BU 5238, BW 7483. Telegraphic Address: "Postgrad Sydney."

SEMINARS AT THE ROYAL PRINCE ALFRED HOSPITAL, SYDNEY.

THE honorary secretary of the Seminar Group, Royal Prince Alfred Hospital, Sydney, announces that seminars, open to all members of the medical profession, will be held on Fridays from 1.15 to 2.15 p.m. in the A2 Lecture Theatre, from February 2 to May 25, 1951. There will be no seminars on March 23 (Good Friday) and on April 16 (meeting of The Royal Australasian College of Physicians). The programme will be as under:

February 9, discussion on cortisone and A.C.T.H. February 16, "The Indeterminate Round Lesion in the Lung". February 23, "Iron Metabolism" (Dr. R. Walsh). March 2, clinico-pathological conference. March 9, "The Electroencephalogram: I" (Dr. L. Rail). March 16, "Tuberculosis of the Gastro-intestinal Tract". March 30, "Surgery of Mitral Stenosis" (Dr. F. Mills). April 6, "The Menopause". April 20, "Spontaneous Pneumothorax". April 27, "Subdural Hæmatoma" (followed by meeting at the Royal Alexandra Hospital for Children). May 4, "Recent Theories Concerning the Coagulation of the Blood" (Dr. Lyons). May 11, "The Electroencephalogram: II" (Dr. L. Rail). May 18, "The Salmonella Infections". May 25, clinico-pathological conference.

Naval, Military and Air Force.

APPOINTMENTS.

THE undermentioned appointments, changes *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Number 7, of January 25, 1951.

AUSTRALIAN MILITARY FORCES.

Citizen Military Forces.

Eastern Command: Second Military District.

Royal Australian Army Medical Corps (Medical).—2/152043 Captain J. Laing is appointed from the Reserve of Officers, 25th October, 1950.

Western Command: Fifth Military District.

Royal Australian Army Medical Corps (Medical).—To be Captain (provisionally), 4th December, 1950—5/26466 George Ian Howard.

Reserve Citizen Military District.

Royal Australian Army Medical Corps.

1st Military District.—To be Honorary Captains, 4th December, 1950.—Donald James Tuffley and Peter John Falconar Grant.

ROYAL AUSTRALIAN AIR FORCE.

Permanent Air Force: Medical Branch.

Flight Lieutenant J. N. Diggle (033066) is granted special leave without pay from 8th August, 1950, to 7th February, 1951, inclusive.

Active Citizen Air Force: Medical Branch.

The following Flight Lieutenants are promoted to the rank of Squadron Leader:—A. T. Pearson (022807), 30th September, 1948, A. M. Beech (033454), 1st January, 1949.

Flight Lieutenant (Temporary Squadron Leader) N. M. Kater, M.C. (021960), is transferred from the Reserve, 12th October, 1950, and granted the honorary rank of Wing Commander.

The appointment of Flight Lieutenant J. H. A. Floyd (033055) is terminated on demobilization, 18th October, 1950.

Doctor Henry Paul Dyer (011972) is appointed to a commission, 27th May, 1950, with the rank of Flight Lieutenant.

Congresses.

FOURTH INTERNATIONAL CONGRESS ON MENTAL HEALTH.

THE Fourth International Congress on Mental Health will be held at Mexico City from December 11 to 19, 1951. The work of the congress will centre mainly around the following topics: mental health in education; occupational and

industrial mental health; mental health of transplanted and homeless persons; leadership and authority in local communities; problems of psychiatric treatment and prophylaxis. Other topics will also be included in the programme. Much of the work will be carried out in small discussion groups, and public sessions will be held in which speakers from different countries will take part. The languages used will be Spanish, French and English. The organizers need to know well in advance roughly the number of those likely to attend. Further details will be sent to those who notify the World Federation for Mental Health of their interest; they should communicate with Dr. E. M. Thornton, 19 Manchester Street, London, W.1., England.

Nominations and Elections.

THE undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

Bailey, Harry Richard, M.B., B.S., 1951 (Univ. Sydney), Flat 17, Capri Court, 1 Roslyn Street, Elizabeth Bay.

Cohn, Lotar, registered in accordance with the provisions of section 17 (1) (*c*) of the *Medical Practitioners Act*, 1938-1945, 168 Pacific Highway, Roseville.

Failes, David Geoffrey, M.B., B.S., 1951 (Univ. Sydney), Sydney Hospital, Macquarie Street, Sydney.

Gershon, Samuel, M.B., B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Hallinan, Geoffrey Michael, M.B., B.S., 1951 (Univ. Sydney), 35 Webb Street, Croydon.

Thornton, Sydney Melford, M.B., B.S., 1951 (Univ. Sydney), Wagga Wagga Base Hospital, Wagga Wagga.

Andria, Brian Maxwell, M.B., B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Sharkey, Bryan Edmund, M.B. B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Pennington, Arthur Frederick, M.B., B.S., 1951 (Univ. Sydney), Parramatta District Hospital, Parramatta.

Hording, Bruce William Ian, M.B., B.S., 1951 (Univ. Sydney), Goulburn District Hospital, Goulburn.

Ohlsson, Keithley, M.B., B.S., 1950 (Univ. Sydney), 10 Carnarvon Road, Roseville.

Pringle, Harry Mossman, M.B., B.S., 1951 (Univ. Sydney), Goulburn District Hospital, Goulburn.

Wright, Francis Boyd, M.B., B.S., 1951 (Univ. Sydney), Flat 9, 5 Springfield Avenue, King's Cross.

The undermentioned have been elected members of the New South Wales Branch of the British Medical Association:

Bowan, Reginald, M.B., B.S., 1951 (Univ. Sydney), 469 Oxford Street, Paddington.

Callaghan, Ronald Alan, M.B., B.S., 1951 (Univ. Sydney), 70 Georges River Road, Croydon.

Cass, Moses Henry, M.B., B.S., 1951 (Univ. Sydney), Royal North Shore Hospital, St. Leonards.

Chalmers, Robert, M.B., B.S., 1951 (Univ. Sydney), 319 Edgecliff Road, Woollahra.

Christie, Majorie Richardson, M.B., B.S., 1951 (Univ. Sydney), 138 Mount Street, Coogee.

Colman, Robin Reuben Simon, M.B., B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital Camperdown.

Cowdery, Richard D'Arcy, M.B., B.S., 1951 (Univ. Sydney), Wallsend District Hospital, Wallsend.

Edwards, Anthony Wilbraham Tollemache, M.B., B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

Fitzpatrick, Ian Wade, M.B., B.S., 1951 (Univ. Sydney), 2 Ryries Parade, Cremorne.

Frost, Peter Taylor, M.B., B.S., 1950 (Univ. Sydney), Royal North Shore Hospital, St Leonards.

Furber, James Gordon, M.B., B.S., 1951 (Univ. Sydney), 580 New South Head Road, Double Bay.

Gegg, William Stanley, M.B., B.S., 1951 (Univ. Sydney), Leeton District Hospital, Leeton.

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA FOR THE WEEK ENDED JANUARY 20, 1951.[1]

Disease.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.[2]	Australian Capital Territory.	Australia.[3]
Ankylostomiasis	*	..	2(2)	..	7	..	..	..	9
Anthrax	*	*	*	*	*	*	..	*	..
Beriberi	*	..	..	..	..	..	..	..	..
Bilharziasis	*	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis	2(1)	2(1)	..	..	..	..	..	..	4
Cholera	..	..	..	..	..	..	..	..	..
Coastal Fever(*a*)	*	*	..	*	*	*	*	*	..
Dengue	*	*	*	*	*	..	..	*	..
Diarrhœa (Infantile)	..	..	10(10)	..	..	..	..	..	10
Diphtheria	3(3)	2(1)	5(2)	..	5(5)	..	..	..	15
Dysentery (Amœbic)	*	..	..	..	..	..	..	..	..
Dysentery (Bacillary)	*	..	..	..	..	..	..	..	..
Encephalitis Lethargica	1	..	..	..	..	..	..	..	1
Erysipelas	*	*	*	4(2)	*	*	..	..	4
Filariasis	*	..	..	..	..	..	..	..	..
Helminthiasis	*	..	*	*	*	*	*	*	..
Hydatid	*	..	*	*	..	*	*	..	..
Influenza	*	*	*	..	*	*	..	*	..
Lead Poisoning	*	*	..	*	*	*	*	*	..
Leprosy	..	..	..	..	..	..	..	..	..
Malaria(*b*)	*	..	..	..	..	..	..	..	..
Measles	*	*	*	112(23)	*	*	..	..	112
Plague	..	..	..	..	..	..	..	..	..
Poliomyelitis	60(23)	5(4)	22(1)	30(20)	..	17(2)	..	..	134
Psittacosis	*	..	*	..	*	*	*	*	..
Puerperal Fever	..	..	..	..	..	..	..	..	..
Rubella(*c*)	*	*	..	*	..	*	..	..	..
Scarlet Fever	10(5)	14(2)	9(*f*)	3(2)	2(1)	1	..	..	38
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	*	..	..	*	*	*	*	*	..
Trachoma	*	..	*	*	*	*	*	*	..
Tuberculosis(*d*)	29(25)	17(14)	5	4(2)	12(10)	4	..	..	71
Typhoid Fever(*e*)	1	..	..	..	..	..	..	..	1
Typhus (Endemic)(*f*)	1	..	..	..	..	..	..	..	1
Undulant Fever	1	..	..	..	..	..	..	..	1
Weil's Disease(*g*)	*	*	4	*	*	*	*	*	4
Whooping Cough	*	*	*	4(2)	*	*	..	..	4
Yellow Fever	..	..	..	..	..	..	..	..	..

[1] The form of this table is taken from the *Official Year Book of the Commonwealth of Australia*, Number 37, 1946–1947. Figures in parentheses are those for the metropolitan area.

[2] Figures not available.

[3] Figures incomplete owing to absence of returns from the Northern Territory.

* Not notifiable.

(*a*) Includes Mossman and Sarina fevers. (*b*) Mainly relapses among servicemen infected overseas. (*c*) Notifiable disease in Queensland in females aged over fourteen years. (*d*) Includes all forms. (*e*) Includes enteric fever, paratyphoid fevers and other Salmonella infections. (*f*) Includes scrub, murine and tick typhus. (*g*) Includes leptospiroses, Weil's and para-Weil's disease.

Gosby, Stanley Noel, M.B., B.S., 1951 (Univ. Sydney), Cessnock District Hospital, Cessnock.
Greaves, Collins Louis, M.B., B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
Harrison, Harold Newton, M.B., B.S., 1951 (Univ. Sydney), 163 Fox Valley Road, Wahroonga.
Hawkins, Hilary Margaret, M.B., B.S., 1950 (Univ. Sydney), Rachel Forster Hospital for Women and Children, Redfern.
Hooper, James Hamilton, M.B., B.S., 1951 (Univ. Sydney), Parramatta District Hospital, Parramatta.
Huber, Felix, M.B., B.S., 1951 (Univ. Sydney), 1 Bardsley Gardens, North Sydney.
Kellerman, Geoffrey Milton, M.B., B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
Killalea, Robert John, M.B., B.S., 1948 (Univ. Sydney), 26 Angus Street, Earlwood.
Kinsella, Edward Louis, M.B. 1947 (Univ. Sydney), 174 Brooks Street, Bar Beach, Newcastle.
Lewis, Richard John Reynette, M.B., B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
Loneragan, Thomas Paul, M.B., B.S., 1950 (Univ. Sydney), Lewisham Hospital, Lewisham.
Lucas, William Gerald, M.B., B.S., 1951 (Univ. Sydney), Royal North Shore Hospital, St. Leonards.
Marshall, Martin Hamilton, M.B., B.S., 1951 (Univ. Sydney), 21 Ormond Street, Ashfield.
Masters, Floyd George, M.B., B.S., 1951 (Univ. Sydney), Auburn District Hospital, Auburn.
Martin, Gwenda Elizabeth, M.B., B.S., 1950 (Univ. Sydney), St. George Hospital, Kogarah.
Michell, George, M.B., B.S., 1951 (Univ. Sydney), Sydney Hospital, Sydney.
Mira, William John Dickson, M.B., B.S., 1951 (Univ. Sydney), Royal North Shore Hospital, St. Leonards.
Morrison, Dorothy Mary, M.B., B.S., 1951 (Univ. Sydney), 5 Muston Street, Mosman.
Myers, Geoffrey Stratford, M.B., B.S., 1951 (Univ. Sydney), Lithgow District Hospital, Lithgow.
Oakley, Donald Waterhouse, M.B., B.S., 1941 (Univ. Sydney), 59 Kangaroo Street, Manly.
Orr, Kevin Bridson, M.B., B.S., 1951 (Univ. Sydney), Grafton Base Hospital, Grafton.
Packard, Robert Spencer, M.B., B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
Paton, Anthony Sutherland, M.B., B.S., 1951 (Univ. Sydney), Hornsby and District Hospital, Hornsby.
Papworth, Reginald Arthur, M.B., B.S., 1951 (Univ. Sydney), Maitland Hospital, Maitland.
Peisley, Hazel Norma, M.B., B.S., 1951 (Univ. Sydney), Orange Base Hospital, Orange.
Pittar, Doreen Julie, M.B., B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
Robson, Alastair Geoffrey Grindrod, M.B., B.S., 1951 (Univ. Sydney), Sydney Hospital, Sydney.
Ryan, James Francis, M.B., B.S., 1951 (Univ. Sydney), Mater Misericordiæ Hospital, Waratah.
Scrivener, Barrie Pedder, M.B., B.S., 1951 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
Shapiro, Colleen Juanita Ann, M.B., B.S., 1951 (Univ. Sydney), Bathurst District Hospital, Bathurst.
Sheaves, Bruce Boyd, M.B., B.S., 1947 (Univ. Sydney), 41 Port Hacking Road, Caringbah.
Short, Donald Wheeler, M.B., 1951 (Univ. Sydney), Temora District Hospital, Temora.
Stehbens, William Ellis, M.B., B.S., 1951 (Univ. Sydney), 2 Wetherill Street, Leichhardt.
Tellesson, Thomas Keith, M.B., B.S., 1951 (Univ. Sydney), Hornsby and District Hospital, Hornsby.
Tellesson, William George, M.B., B.S., 1951 (Univ. Sydney), Sydney Hospital, Sydney.
Tomkins, John Anton, M.B., B.S., 1951 (Univ. Sydney), 30 Hanks Street, Ashfield.

Corrigendum.

IN the leading article on the virus theory of the causation of cancer published in the issue of February 10, 1951, an error appears in the second column on page 233. In the eleventh line the word "mycosis" should be "mitosis" so that the last part of the sentence will read: "by continuing to multiply within the cell continually stimulate it to further mitosis long after the secondary course has ceased to act".

Medical Appointments.

Dr. N. J. Way has been appointed resuscitation registrar, at the Royal Adelaide Hospital, Adelaide.

Dr. W. F. Emery has been appointed pathological registrar, at the Royal Adelaide Hospital, Adelaide.

Diary for the Month.

FEB. 22.—Victorian Branch, B.M.A.: Executive Meeting.
FEB. 22.—South Australian Branch, B.M.A.: Branch Meeting.
FEB. 23.—Queensland Branch, B.M.A.: Council Meeting.
FEB. 26.—Federal Council, B.M.A. in Australia: Meeting at Melbourne.
FEB. 27.—New South Wales Branch, B.M.A.: Ethics Committee.
FEB. 28.—Victorian Branch, B.M.A.: Council Meeting.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Medical Secretary, 135 Macquarie Street, Sydney)—All contract practice appointments in New South Wales.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federal Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225 Wickham Terrace, Brisbane, B17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 178 North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia; Medical Officer, South Australian Railways.

Western Australian Branch (Honorary Secretary, 205 Saint George's Terrace, Perth): Norseman Hospital; all Contract Practice appointments in Western Australia. All government appointments with the exception of those of the Department of Public Health.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW2651-2.)

Members and subscribers are requested to notify the Manager, THE MEDICAL JOURNAL OF AUSTRALIA, Seamer Street, Glebe, New South Wales, without delay, of any irregularity in the delivery of this journal. The management cannot accept any responsibility or recognize any claim arising out of non-receipt of journals unless such notification is received within one month.

SUBSCRIPTION RATES.—Medical students and others not receiving THE MEDICAL JOURNAL OF AUSTRALIA in virtue of membership of the Branches of the British Medical Association in the Commonwealth can become subscribers to the journal by applying to the Manager or through the usual agents and booksellers. Subscriptions can commence at the beginning of any quarter and are renewable on December 31. The rate is £4 *per annum* within Australia and the British Commonwealth of nations and £5 *per annum* within America and foreign countries, payable in advance.